

# TOWN OF LOOMIS SPMUD DIVERSION PIPELELINE PROJECT **MITIGATED NEGATIVE DECLARATION**

---

DRAFT – June 2015



Prepared for:

Town of Loomis  
3665 Taylor Road  
Loomis, California 95650  
Attn: Rick Angelocci  
916.652.1840

Prepared by:

Hauge Brueck Associates, LLC  
2233 Watt Ave., Suite 300  
Sacramento, CA 95825  
Attn: Anders Hauge  
(916) 283-5800

June 18, 2015

---



# TABLE OF CONTENTS

DRAFT MITIGATED NEGATIVE DECLARATION.....	iii
---	-----

APPROVAL OF THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION.....	ix
---	----

INITIAL STUDY .....	1
---------------------	---

## 1.0 INTRODUCTION

1.1 Environmental Review Process .....	1
1.2 Project Title .....	2
1.3 Lead Agency .....	2
1.4 Contact Person and Phone Number .....	2
1.5 Project Location .....	2
1.6 Project Sponsor's Name and Address .....	2
1.7 General Plan Designation/Zoning .....	4
1.8 Summary of Project.....	4
1.9 Surrounding Land Uses and Setting .....	4
1.10 Other Public Agencies Whose Approval is Required .....	4
1.11 Public Review.....	5
1.12 Environmental Factors Potentially Affected/Areas of Known Controversy .....	5

## 2.0 PROJECT DESCRIPTION

2.1 Project Location .....	6
2.2 Project History and Objectives .....	6
2.3 Site Characteristics .....	12
2.4 Project Features.....	14
2.5 Phasing and Construction .....	18
2.6 Regulatory Compliance Measures .....	22
2.7 Required Permits and Approvals .....	25

## 3.0 ENVIRONMENTAL SETTING AND IMPACT ANALYSIS

I. Aesthetics.....	27
II. Agricultural and Forestry Resources .....	30
III. Air Quality.....	33
IV. Biological Resources.....	37
V. Cultural Resources.....	58
VI. Geology and Soils .....	63
VII. Greenhouse Gas Emissions .....	70
VIII. Hazards and Hazardous Materials.....	73
IX. Hydrology and Water Quality .....	76
X. Land Use and Planning.....	81
XI. Mineral Resources .....	82
XII. Noise .....	83
XIII. Population and Housing .....	92
XIV. Public Services.....	93
XV. Recreation .....	96
XVI. Transportation and Traffic.....	97
XVII. Utilities and Service Systems.....	100
XVIII. Mandatory Findings of Significance .....	104

## 4.0 LIST OF PREPARERS

4.1	Lead Agency .....	107
4.2	Environmental Consultants .....	107

## 5.0 REFERENCES

5.1	References.....	108
5.2	Correspondence and Personal Communications .....	110

## TABLES

Table 1	Project Alignments and Features .....	14
Table 2	Attainment Status Designations for the Western Portion of Placer County within the Sacramento Valley Air Basin.....	34
Table 3	Maximum Daily Construction Emissions.....	36
Table 4	Regional Species and Habitats of Concerns .....	39
Table 5	NRCS Soils in the Project Area.....	68
Table 6	Typical Noise Levels .....	85
Table 7	Effects of Vibration on People and Buildings .....	87
Table 8	Construction Equipment.....	89
Table 9	Vibration Levels or Varying Construction Equipment.....	90
Table 10	Intersection Level of Service Definitions .....	98

## FIGURES

Figure 1	Location Map.....	3
Figure 2	USGS Topographic Map .....	7
Figure 3	Preliminary Alignments .....	11
Figure 4	Land Use Map.....	13
Figure 5	Pipeline Alignment .....	15
Figure 6	Typical Open Cut Pipeline Construction Detail .....	20
Figure 7	Soil Map .....	69

## APPENDICES

Appendix A	Air Emissions Calculations
Appendix B	Biological Features and Preferred Alignment Map and Biological Resources Reports
Appendix C	Cultural Resources Study
Appendix D	General Plan Consistency Tables



## Draft Mitigated Negative Declaration

**Project:** South Placer Municipal Utility District Diversion Pipeline Project

**Lead Agency:** Town of Loomis, CA

### Project Description

This Initial Study and Mitigated Negative Declaration (IS/MND) evaluates the natural environmental effects of the proposed South Placer Municipal Utility District (SPMUD) Diversion Pipeline Project (Project). The Town of Loomis is proposing to construct, operate and maintain a diversion pipeline to address existing and forecasted pipeline capacity deficiencies and maintain adequate levels of service. The Project will be located on approximately 6.7 acres of privately owned property and public easement located near I-80, Horseshoe Bar Road, Betty Lane, Brace Road, and Dias Lane (APN #043-100-038, 043-080-045, 043-120-003, 043-120-004, 043-120-013, 043-120-014, 043-130-001, 045-044-001, 045-044-053, 045-044-038, 045-044-042, 045-044-033, 045-044-030, 045-044-055, and 045-044-024). The Project will include the installation of 7,233 linear feet of 15- to 24-inch sanitary sewer pipeline installed using open cut trenching and bore and jack trenchless methods.

### Findings

An IS/MND has been prepared to assess the project's potential effects on the environment and the significance of those effects. Based on the IS/MND, it has been determined that the proposed project would not have significant effects on the natural environment after implementation of mitigation measures. This conclusion is supported by the following findings:

1. The proposed project would have no effects related to agricultural and forest resources or mineral resources.
2. The proposed project would have a less-than-significant impact on aesthetics, air quality, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, public services, utilities, recreation, transportation/traffic, and population and housing.
3. Mitigation is required to avoid or reduce potentially significant impacts related to biological resources, cultural resources and noise.

The following mitigation measures have been incorporated in the Project to avoid or minimize environmental impacts. Implementation of these mitigation measures would avoid or reduce the environmental impacts of the proposed project to a less-than-significant level.

#### **BIO-1. Active Raptor and Migratory Bird Nest Site and Wildlife Nursery Site Protection Program**

SPMUD shall protect existing active bird nests to be impacted by Project construction activities. SPMUD shall develop an Active Raptor and Migratory Bird Site Protection Program (Program) to meet these needs. The Program shall include surveys, consultation, and protective actions. Pre-construction surveys, conducted during the nesting/breeding season (February 1-August 31) no longer than seven (7) days prior to initial Project construction (e.g., excavation, grading and tree removal), shall be conducted to identify any active raptor or migratory bird nest sites and wildlife nursery sites within the project area that may not have occurred previously. During initial construction activities

(tree removal and excavation for the construction), a qualified biological monitor shall be present to evaluate whether any raptors or migratory birds are occupying trees within the project area. If active raptor nests are found on or within 500 feet of the project impact area, construction activities should not occur within 500 feet of the nests, or up to 1/4-mile of the nest if it is an active Swainson's hawk nest, until the young have fledged or until the biologist has determined that the nest is no longer active. The biological monitor shall have the authority to stop construction near occupied trees or nursery sites if it appears to be having a negative impact on nursery sites, nesting raptors, migratory birds or their young observed within the construction zone. If construction must be stopped, the monitor shall consult with CDFW or USFWS (if applicable) staff within 24 hours to determine appropriate actions to restart construction while reducing impacts to identified nursery sites, raptors or migratory bird nests.

### **BIO-2. Western Burrowing Owl**

A qualified biologist shall perform a burrowing owl survey of the project impact area no more than 30 days prior to the commencement of construction. Burrowing owls can be present during all times of the year in California, so this survey is required regardless of the time construction activities occur. If active owl burrows are located during the pre-construction survey, it is recommended that a 250-foot buffer zone be established around each burrow with an active nest until the young have fledged and are able to exit the burrow. If occupied burrows are found with no nesting occurring, if active burrows are found after the young have fledged, or if development commences after the breeding season (typically February-August), passive relocation of the birds shall be performed. Passive relocation involves installing a one-way door at the burrow entrance, which encourages the owls to move from the occupied burrow. CDFW shall be consulted for current guidelines and methods for passive relocation of any owls found on the site. If burrowing owls are determined to be occupying the site, mitigation for project impacts that result in relocation of burrowing owls and loss of burrows and/or foraging habitat will be required. CDFW recommends 6.5 acres of foraging habitat be preserved for each active burrow that would be impacted by project activities. The City of Loomis, in coordination with CDFW, would be responsible for prescribing appropriate mitigation for any project-related impacts to burrowing owls. These mitigation measures would only apply in the event that burrowing owls were encountered during the pre-construction survey.

### **BIO-3. Valley Elderberry Longhorn Beetle**

While processing a CWA Section 404 permit for project-related impacts to federally jurisdictional wetlands (refer to Section IV.c, Substantial Adverse Effect on Wetlands), USACE will consult with the USFWS regarding potential effects to federally listed species pursuant to Section 7 of the Federal Endangered Species Act. This consultation may result in the issuance of a Biological Opinion by USFWS to authorize incidental take of valley elderberry longhorn beetle (VELB). The Biological Opinion will contain required impact minimization and mitigation measures that must be implemented to protect and/or mitigation habitat for VELB prior to project initiation.

Complete avoidance (i.e., no adverse effects) may be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. The proposed Project will avoid direct impacts (removal) to all of the 18 elderberry shrubs within the Project corridor; however, conducting construction related activities within a 100-foot protective buffer zone is still considered to be a potentially significant impact according to the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (Conservation Guidelines), issued by the USFWS on July 9, 1999. USFWS must be consulted before any disturbance occurs within the 100-foot buffer area. In addition, USFWS must be provided with a map identifying the avoidance area and written details describing avoidance measures.

The following mitigation measures, in addition to any additional compensatory and/or protective measures specified in the USFWS Biological Opinion, will be implemented:

1. In accordance with the Conservation Guidelines (1999), updated surveys will be conducted by a qualified biologist within 100 feet of the Project site for the presence of the VELB and suitable elderberry host plants that have one or more stems measuring 1.0 inch or greater in diameter at ground level.
2. Elderberry shrubs that are not within the Preferred Project Alignment. A minimum of a 20-foot buffer from the dripline of each retained shrub shall be established to ensure that beetles that may be utilizing the shrubs are not adversely affected. All buffers shall be marked with brightly colored flags or fencing and shall be maintained until project construction is complete.
3. At the discretion of the USFWS, if any elderberry shrubs are removed as a result of project construction, they will either be transplanted to another suitable location onsite or to a USFWS-approved valley elderberry longhorn beetle conservation bank in accordance with procedures outline in the Conservation Guidelines (1999). The restored elderberry beetle habitat will be monitored and maintained in accordance with the Conservation Guidelines (1999).

#### **BIO-4. Special-Status Plant Species**

To confirm the presence or absence of rare plants on the project site, a qualified biologist shall conduct a focused survey according to CDFW guidelines, for these species prior to the onset of construction activities. The surveys shall be conducted at the proper time of year when the plants are both evident and identifiable (approximately June). A qualified biologist is an individual who possesses the following qualifications: 1) experience conducting floristic field surveys; 2) knowledge of plant taxonomy and plant community ecology; 3) familiarity with the plants of the area, including rare, threatened, and endangered species; 4) familiarity with the appropriate state and federal statutes related to plants and plant collecting; and 5) experience with analyzing impacts of development on native plant species communities.

If none of the special-status plants are found on the site, no further mitigation would be required. If any of these plant species are located, the survey will determine the number of individuals present and the limits of the area occupied by the population, and one of the following additional mitigation measures will be implemented:

- a. avoidance and permanent protection of the on-site population;
- b. permanent preservation of an existing, off-site population of the species in the region at a 2:1 acreage ratio and a similar population size (1:1 ratio); or
- c. transplant the individuals to permanently preserved habitat off-site at a 2:1 acreage ratio (preferably adjacent to the site or in close proximity).

Each additional mitigation option above (a – c) shall include the preparation of a Preservation Plan (under a or b) or a Mitigation Plan (under c) by a qualified biologist/botanist, to be submitted to and approved by the City, as well as CDFW and/or USFWS. The Plan shall include the location and extent of the preserved or transplanted individuals, measures to ensure protection of the population during and following project implementation (in perpetuity), including a mechanism to ensure permanent preservation of the population from development such as a conservation easement or

agreement with the landholder (such as the City). The Plan shall also include methods to transplant the individuals (if applicable), measures to maintain the population (i.e. weed control), and methods to monitor the population for a minimum of five years following preservation or transplantation, including performance criteria and contingency measures in case of failure to meet performance criteria.

#### **BIO-5. Section 404/401 Wetlands and Waters**

Any alterations of, or discharges into, waters of the United States, including Section 404 wetlands must be in conformance with the Sections 404 and 401 of the CWA via certification and permitting prior to any grading or construction that may impact jurisdictional area(s), as applicable. If avoidance of federally protected wetlands is not feasible, securing 404 and 401 permits under the Clean Water Act and compliance with the federal and state “no net loss of wetlands” policy will be required in accordance with USACE and Regional Water Quality Control Board (RWQCB) regulations. Prior to initiation of ground disturbance activities, the applicant shall consult with the USACE to identify potential impacts to the wetland features identified in the verified jurisdictional delineation. If the USACE determines that jurisdictional waters will be impacted by the project, the appropriate Clean Water Act (CWA) Section 404 permit shall be acquired by the applicant for the construction of the proposed project. In addition, RWQCB certification is required pursuant to Section 401 of the CWA to obtain a 404 permit.

Preparation of a wetlands mitigation plan would be required to be submitted with the agency permit applications, including an agreed-upon replacement ratio of wetlands with the USACE and RWQCB. The mitigation plan shall address protection of wetland features retained onsite, quantify the total jurisdictional acreage lost, describe creation/replacement ratio for acres filled, annual success criteria, potential mitigation-sites, monitoring and maintenance requirements, and contingency measures if the success criteria are not met. The amount of compensatory wetland acreage shall be based on the functions and values of impacted wetlands, but will include a minimum of a 1:1 ratio of created to filled wetlands. The plan shall be prepared by a qualified biologist pursuant to, and through consultation with, the USACE and RWQCB. The mitigation plan may include funding mechanisms for future maintenance of the wetland and riparian habitat, which may include an endowment or other funding from the project applicant. Impact minimization measures associated with permits may include implementation of best management practices (i.e., erosion and sediment control measures) and seasonal work restrictions, as appropriate. Impacts to jurisdictional features shall not occur until the permits are received from the appropriate regulatory agencies, or correspondence is received from the agencies indicating that a permit is not required.

As an alternative to wetland creation, equivalent mitigation credits may be purchased at a mitigation bank to offset impacts to federally jurisdictional riverine seasonal wetlands. A mitigation plan would need to be prepared that provides detailed information about the bank and how the purchase of credits will result in no net loss of wetlands. Purchase of mitigation credits shall be subject to approval and verification by USACE, RWQCB, and the Town prior to the initiation of ground disturbing activities.

#### **BIO-6. Wildlife Hibernacula/Roosting/Nursery Site Protection Program**

SPMUD shall conduct a thorough pre-construction survey (performed by a qualified biologist) of project area for wildlife nursery sites and special status bat roost sites. The survey shall be performed by a professional biologist with experience locating nursery and bat roost sites and shall be performed prior to initial ground disturbance and tree removal. The survey area shall include the location of ground disturbance and tree removal as well as areas within 50 meters of ground disturbing activities, as well as any area where staging will occur or access will be provided for construction equipment.

The contracted biologist shall report the findings of the survey to the City of Loomis and CDFW. If special status bat roosts or nursery sties are located, CDFW shall be consulted to determine courses of action and determine appropriate actions and to reduce potential impacts. Adoption of mitigation measures for roosting bat species would be considered only if special-status bat species are found to be roosting within the project impact area.

#### **BIO-7. Preservation and Mitigation of Protected Trees**

Consistent with the Town of Loomis ordinance, the project has been designed to incorporate avoidance measures into the project design to maximize the preservation of protected trees. Since tree removal will occur as part of sewer line installation, upon completion of a final site design, SPMUD shall apply for a tree removal permit from the Town. For trees protected and retained within the project area, a Trenching-Pathway Plan must be prepared that includes an accurate plotting of the CRZ of all protected trees within the Project corridor and/or 50 ft of soil disturbance activities. A Tree Protection Plan must be prepared by a certified arborist that identifies which trees are proposed for removal and preservation and includes a program that will be implemented during and construction to insure survival of protected trees. All of the tree preservation measures required by the conditions of a discretionary project approval (the Tree Protection Plan and tree removal permit, as applicable) shall be completed and certified by Town staff or the approved arborist.

When the Town has granted a tree permit to remove a protected tree, the permit shall require the applicant to replace the tree with a living tree (or trees) of the same species, preferably on the property. The tree replacement requirement shall be calculated as provided by Tree Mitigation Table 5-3 of Town of Loomis Ordinance No. 252, Section 13.54.090 (Removal of Trees, Mitigation and Replacement) and the City of Rocklin Oak Tree Preservation Guidelines. The applicant will be required per the ordinances to replace the tree(s) and continue to replant the replacement tree(s) if the tree(s) die(s) any time within five (5) years of the initial planting. Mitigation and monitoring plan will be prepared for the replacement of protected trees in accordance with the Town of Loomis and City of Rocklin tree removal permit conditions. Annual monitoring and written report preparation by a certified arborist will be required to ensure survival of the trees.

#### **CR-1. Pre-construction Native American Consultation**

Before any construction takes place the South Placer Municipal Utility District should initiate consultation with the three Native American groups that have expressed a concern with the project. Ideally, one group could be identified as most likely descendants and further consultation would continue with that group to insure that Native American concerns are mitigated.

#### **CR-2. Staging Area, Storage, and Spoil Disposal Site Review**

When construction plans are complete, areas identified for staging area, equipment storage, spoils disposal and any other off-site impacts should be examined by a qualified archeologist/historian to identify any cultural resources that might be present.

#### **CR-3. Trench Monitoring**

Trenching along Brace Road and Dias Lane should be monitored by a qualified archeologist/historian. These areas have not been surveyed and there is the potential for subsurface resources. The monitor should have the authority to halt trenching, if necessary, in order to evaluate any finds. Trenching could continue in other areas. Further actions would depend on whether or not the resource appears significant.

Should artifacts, exotic rock (particularly obsidian), or concentrations of bone or shell be uncovered during any construction activities, an archeologist should be consulted for on-the-spot evaluation. If the bone appears to be human, the Placer County Coroner must be contacted. If the coroner determines that the bone is most likely Native American in origin, he will contact the Native American Heritage Commission to identify most likely descendants for consultation regarding further treatment of the remains (if this has not already been accomplished).

**NOISE-1. Pre-construction Structural Documentation and Post-construction inspection**

Where homes or structures are located within 25 feet of the construction corridor, South Placer Municipal Utility District shall conduct visual pre- and post-construction home inspections, with photographic and/or videographic records, and will compensate those homeowners if any damage is caused as a result of project construction.

Questions or comments regarding this MND may be addressed to:

Rick Angelocci  
Town Manager  
Town of Loomis  
3665 Taylor Road  
Loomis, California 95650  
916.652.1840

## Approval of Initial Study/Mitigated Negative Declaration

Certification by Those Responsible for Preparation of this Document. The Town of Loomis has been responsible for the preparation of this mitigated negative declaration and the incorporated initial study. I believe this document meets the requirements of the California Environmental Quality Act, is an accurate description of the proposed project, and that the lead agency has the means and commitment to implement the project design measures that will assure the project does not have any significant, adverse effects on the environment. I recommend approval of this document.

---

Rick Angelocci, Town Manager  
Town of Loomis

\_\_\_\_\_

Date

Approval of the Project by the Lead Agency. Pursuant to Section 21082.1 of the California Environmental Quality Act, the Town of Loomis has independently reviewed and analyzed the initial study and mitigated negative declaration for the proposed project and finds that the initial study and mitigated negative declaration for the proposed project reflect the independent judgment of the Town Council. The lead agency finds that the project design features will be implemented as stated in the mitigated negative declaration.

I hereby approve this project.

---

Rhonda Morillas, Mayor  
Town of Loomis

\_\_\_\_\_

Date

\* To be signed upon completion of the public review process and preparation of a final project approval package including responses to comment, if any, on the environmental document and any necessary modifications to project design measures.





---

# 1.0 INITIAL STUDY

---

## 1.0 Introduction

This Initial Study (IS) identifies and assesses the anticipated environmental impacts of the SPMUD Diversion Pipeline Project (Project).

## 1.1 Environmental Review Process

This document satisfies the requirements of the California Environmental Quality Act (CEQA). The Town of Loomis (Town) is the lead agency under provisions of CEQA. CEQA requires that state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. The IS, prepared in accordance with the CEQA Statutes (Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (California Administrative Code Section 15000 et seq.), presents sufficient information to allow the Town to determine whether the project may have a significant effect on the environment. If the Town finds substantial evidence that any aspect of the Project, either individually or cumulatively, may have a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the Town must prepare an EIR. If the Town finds no substantial evidence that the Project or any of its aspects may cause a significant effect on the environment, a Negative Declaration shall be prepared. If in the course of analysis, the Town recognizes that the project may have a significant impact on the environment, but that by incorporating specific mitigation measures the impact will be reduced to a less than significant effect, a Mitigated Negative Declaration (MND) shall be prepared.

The IS provides sufficient information for Responsible and Trustee agencies to use as the basis for CEQA compliance, including the Regional Water Quality Control Board and the California Department of Fish and Wildlife (CDFW). The IS is not, in and of itself, a decision document. The document's purpose is to evaluate the environmental consequences of implementing the project and to identify measures if necessary to avoid or mitigate significant impacts.

Although the lead agency must consider the information in the MND, the document's conclusions do not dictate the lead agency's discretion to approve or disapprove the project. The decision making document is the Notice of Determination that records the agency's decision and is circulated for public review. The minimum content requirements for a MND are:

- Description and title of the project;
- Location of the project, preferably shown on a map;
- Name of the project proponent;
- A proposed finding that the project will not have a significant effect on the environment;
- An attached copy of the Initial Study documenting reasons to support the finding; and
- Mitigation measures, if any, included in the project to avoid potentially significant effects.

Although not required by CEQA, the State Clearing House (SCH) requests a completed Notice of Completion (NOC) form to be submitted with the 15 copies of the draft MND. This form facilitates the processing of environmental documents and is circulated to state agencies together with the MND. The information from the NOC form is entered into the SCH database. The normal review period for a Negative Declaration submitted to the SCH is 30 calendar days (see CEQA Guidelines, Section 15105). Agency and public comments are forwarded to the SCH prior to the end of the assigned review period. At the end of the state review period, comments from the reviewing state agencies are collected at the

SCH. A closing letter and a complete package of comments are forwarded to the Lead Agency on the day following the close of the review period.

Within five working days of approving a project for which a MND has been adopted, the Town must file a Notice of Determination (NOD). The filing of the NOD begins a 30-calendar-day statute of limitations on court challenges to the project approval under CEQA.

The project must comply with Clean Water Act (CWA) Section 401 Water Quality Certification and CWA Section 402 National Pollutant Discharge Elimination System (NPDES) construction permits issued by the Regional Water Quality Control Board. CDFW issues a Streambed Alteration Agreement. The Town must complete design review of the project and issue construction and encroachment permits for portions of the Project entering street ROWs.

## **1.2 Project Title**

The *SPMUD Diversion Pipeline Project* (Project) serves as the project title for the proposed project.

## **1.3 Lead Agency**

The Town of Loomis (Town) serves as the lead agency for the Project. Since a portion of the Project is located in the City of Rocklin, the City of Rocklin serves as a responsible agency.

## **1.4 Contact Person and Phone Number**

Rick Angelocci, Town Manager, Town of Loomis, is the project manager for the Project. His contact information is:

Town of Loomis  
3665 Taylor Road  
Loomis, CA 95650  
Attn: Rick Angelocci  
916.652.1840

## **1.5 Project Location**

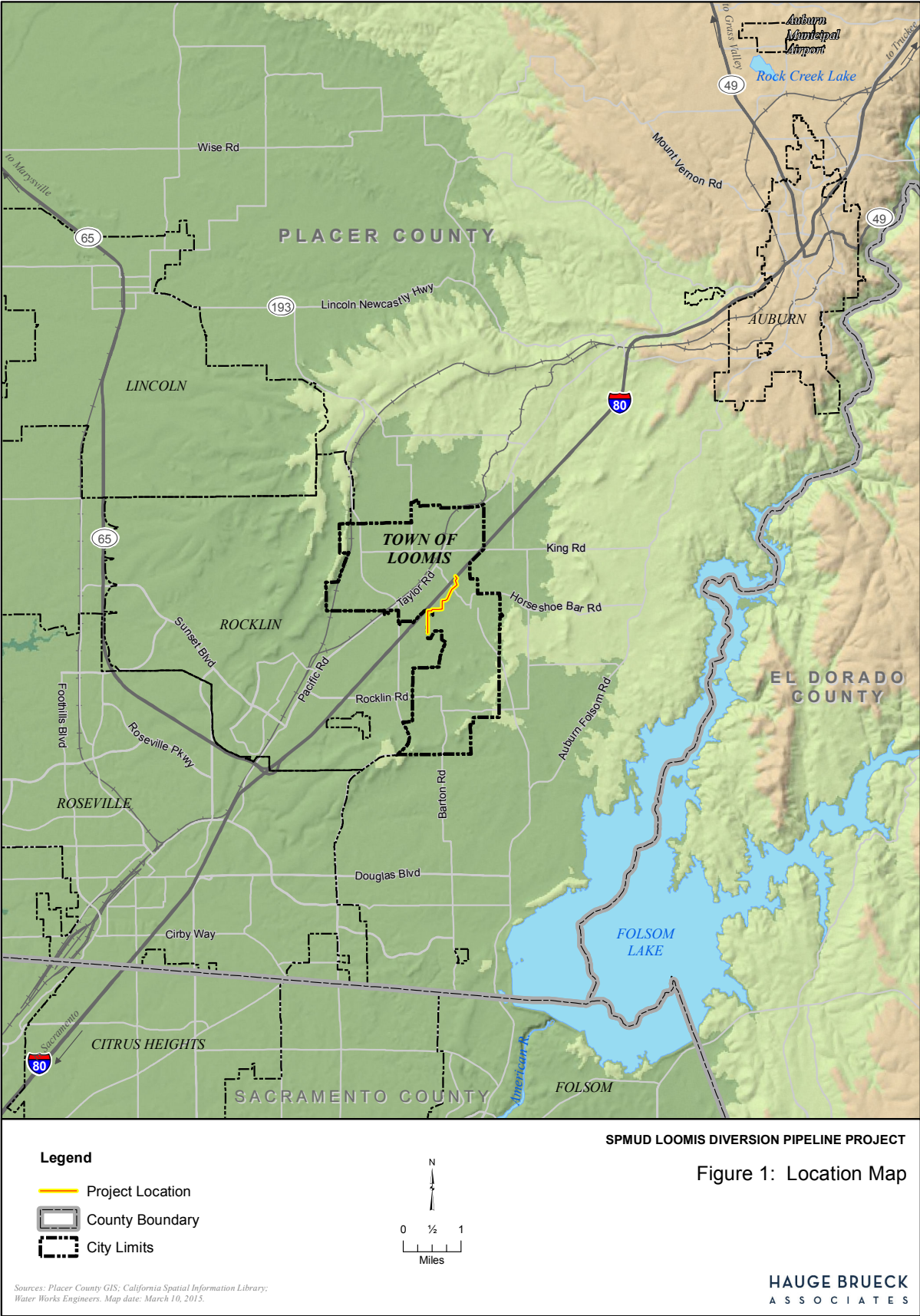
The Project is located primarily in the central section of the Town of Loomis, with a small portion of the southern alignment (lower portion of Section 3E) located in the City of Rocklin, within western Placer County within the Rocklin, CA United States Geological Survey (USGS) 7.5-minute quadrangle, Sections 10 and 16 of Township 11 North, Range 7 East, M.D.B. &M. The site is situated primarily south of I-80 (See Figure 1).

Latitude: 38°49'07"N to 38°48'15"N

Longitude: 121°11'17"W to 121°11'47"W

## **1.6 Project Sponsor's Name and Address**

South Placer Municipal Utility District  
5807 Springview Drive  
Rocklin, CA 95677  
(916) 786-8522



## 1.7 General Plan Designation/Zoning

The General Plan Designations and Zoning, which use the same naming system, for the Project alignment in the Town of Loomis are General Commercial (CG), Tourist/Destination Commercial (CT), Residential Estate (RE), and Rural Residential (RR). In the City of Rocklin, the alignment is zoned Unclassified (UN) and Residential Single Family 12,500 sf minimum lots (R1-12.5), while the Rocklin General Plan identifies the affected parcels as Low Density Residential (LDR) and Medium Density Residential (MDR).

## 1.8 Summary of Project

The Town of Loomis is proposing to construct, operate and maintain a diversion pipeline to address existing and forecasted pipeline capacity deficiencies and maintain adequate levels of service. The Project will be located on approximately 6.7 acres of privately owned property and public easement located near I-80, Horseshoe Bar Road, Betty Lane, Brace Road, and Dias Lane (APN #043-100-038, 043-080-045, 043-120-003, 043-120-004, 043-120-013, 043-120-014, 043-130-001, 045-044-001, 045-044-053, 045-044-038, 045-044-042, 045-044-033, 045-044-030, 045-044-055, and 045-044-024). The Project will include the installation of 7,233 linear feet of 15- to 24-inch sanitary sewer pipeline installed using open cut trenching and bore and jack trenchless methods.

## 1.9 Surrounding Land Uses and Setting

Uses adjacent to and within the vicinity of the Project site include the Raley's shopping center and Interstate 80 at the northern end of the alignment. The alignment then passes through currently undeveloped land south of Interstate 80, and along roadway right-of-way. Rural homesites, pastures, a preschool, and an RV lot are located within the vicinity of the pipeline between Betty Lane to the southern terminus of the alignment.

## 1.10 Other Public Agencies whose approval is required

The Project requires approval from the following public agencies:

- Caltrans – Encroachment Permit
- California Department of Fish and Wildlife – Section 1602 Streambed Alteration Agreement
- U.S. Fish and Wildlife – Section 7
- California Office of Historic Preservation – Section 106
- Regional Water Quality Control Board– Section 401 Water Quality Certification; Section 402 NPDES construction permit
- U.S. Army Corps of Engineers - Section 404 Permit (Nationwide permit 12 and 33)
- Placer County Air Pollution Control District
- City of Rocklin–Design Review Permit; Construction Permit; Encroachment Permit (Dias Lane)
- Town of Loomis–Design Review Permit; Construction Permit; Encroachment Permit (Horseshoe Bar Road and Brace Road)
- City of Rocklin – Encroachment Permit (Brace Road and Dias Lane)
- Placer County Water Agency – Design Review and Construction Inspection at utility crossing in Brace Road

## 1.11 Public Review

A formal public review of the Project IS/MND is accomplished with the circulation of this document, responses to comments received on this document, and through public hearings held to consider approval of the proposed action.

The Draft IS/MND will be circulated for public and agency review from June 18, 2015 to July 19, 2015. A copy of the document can be downloaded from: [http://www.loomis.ca.gov/loomis\\_projects.html](http://www.loomis.ca.gov/loomis_projects.html). Paper copies of the document are available for review at the following locations during business hours:

Town of Loomis  
3665 Taylor Road  
Loomis, CA 95650

Comments on this document must be received by 11:59 p.m. on July 19, 2015. Written comments may be sent by postal, electronic mail or fax to:

Rick Angelocci  
Town of Loomis  
3665 Taylor Road  
Loomis, California 95650  
916.652.1840

## 1.12 Environmental Factors Potentially Affected/Areas of Known Controversy

The public input process and environmental analysis included in the preparation of the IS/MND identified key environmental issues and areas of known controversy. The environmental factors checked below could be affected by this Project.

**Blank** No impact  
**L** Less than significant impact  
**M** Less than significant impact with mitigation  
**PS** Potentially significant

<u><b>L</b></u> Aesthetics	<u>          </u> Agriculture & Forestry Resources	<u><b>L</b></u> Air Quality
<u><b>M</b></u> Biological Resources	<u><b>M</b></u> Cultural Resources	<u><b>L</b></u> Geology/Soils
<u><b>L</b></u> Greenhouse Gas	<u>          </u> Hazards & Hazardous	<u>          </u> Hydrology/Water
<u><b>L</b></u> Emissions	<u><b>L</b></u> Materials	<u><b>L</b></u> Quality
<u><b>L</b></u> Land Use/Planning	<u>          </u> Mineral Resources	<u><b>L</b></u> Noise
<u><b>L</b></u> Population/Housing	<u><b>L</b></u> Public Services	<u><b>L</b></u> Recreation
<u><b>L</b></u> Transportation/Traffic	<u>          </u> Utilities/Service	<u>          </u> Mandatory Findings of
	<u><b>L</b></u> Systems	<u><b>M</b></u> Significance

## 2.0 Project Description

This chapter describes the *SPMUD Diversion Pipeline Project* (Project). Sections 2.1, 2.2 and 2.3 describe the project location, history, objectives, and site characteristics. Section 2.4 details the project components, including design features and operation plans, while Section 2.5 details phasing and construction. Section 2.6 includes compliance measures, BMPs, and plans. Required permits and approvals are listed in Section 2.7.

### 2.1 Project Location

The Project is located in the Town of Loomis and City of Rocklin, in the western portion of Placer County, approximately 20 miles northeast of Sacramento, within the Rocklin, CA United States Geological Survey (USGS) 7.5-minute quadrangle, in Section 10 and 16 of Township 11 North, Range 7 East, M.D.B. &M (Figure 1). The Project's latitude is: Latitude: 38°49'07"N to 38°48'15"N and the Project's longitude is: 121°11'17"W to 121°11'47"W. The Project will begin from an existing sewer manhole located northeast of the Raley's supermarket in the Town of Loomis and will connect with a new sewer manhole located on the northern side of the Rocklin 60 development, south of Diaz Lane. The 6.7-acre Project site includes Placer County Assessor's Parcel Numbers APN #043-100-038, 043-080-045, 043-120-003, 043-120-004, 043-120-013, 043-120-014, 043-130-001, 045-044-001, 045-044-053, 045-044-038, 045-044-042, 045-044-033, 045-044-030, 045-044-055, and 045-044-024 (Figure 2). Of the 6.7-acre temporary disturbance area, 3.2 acres are located within existing disturbed areas (existing roadway). The permanent disturbance area, consisting of new sanitary-sewer manholes, will occupy approximately 625 square feet of which, 325 square feet will be within existing disturbed area (existing roadway).

### 2.2 Project History and Objectives

#### 2.2.1 Project History

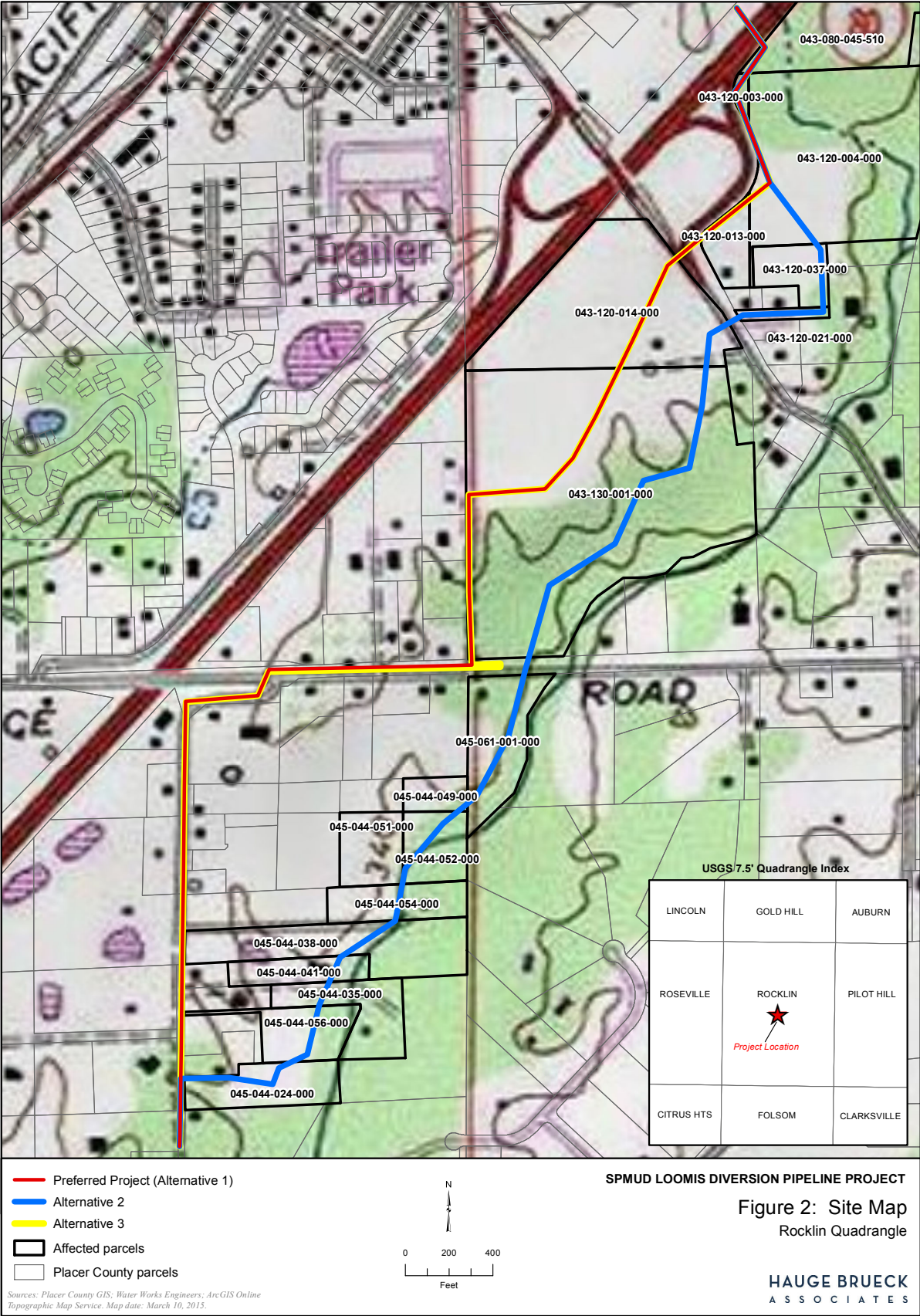
Hydraulic modeling for the 2009 SPMUD Wastewater Collection System Master Plan indicated that the existing Lower Loomis Trunk Line had an estimated remaining capacity of 200 Equivalent Dwelling Units (EDUs). This remaining capacity was consumed in 2010 when the Community of Newcastle was added to the District, along with other improvements that occurred at that time. This resulted in no remaining capacity in the Lower Loomis Trunk as concluded in the SPMUD 2013 Capacity Assurance Study. There are several near-term planned development projects within the service area that will require sewer capacity. Based on the most recent submittals, the proposed projects include approximately:

- The Village at Loomis – 450 EDUs
- The Orchard at Penryn – 54 EDUs
- Taylor Road Mixed-Use Projects – 46 EDUs
- Turtle Island – 275 EDUs

With a potential for an additional 825 EDUs served by the Lower Loomis Trunk Line, and an existing lack of residual capacity, the Project would support the 1981 and 2009 Wastewater Collection System Master Plans and future planning scenarios.

The 2013 Capacity Assurance Study found the existing Lower Loomis Trunk Sewer line has reached flow depth to pipe diameter ratio of 0.7 during the Average Dry Weather Flow conditions, which is considered deficient; for some segments of the pipe and is at capacity during the Peak Wet Weather Flow conditions with minimum to no freeboard available in many pipe segments and manholes. Modeling indicates sanitary sewer overflows could occur if additional flows from development occur.





## 2.2.2 Objectives

The SPMUD 1981 and 2009 Master Plans, and 2013 Capacity Assurance Study found that upsizing the existing Lower Loomis Trunk Sewer will require substantial capital expenditure and would be associated with additional environmental and acquisition/right-of-way constraints and concluded that development of a diversion pipeline would address existing capacity concerns at a lower cost and reduced disturbance. The purpose of the Project is to divert existing sewage flows from Newcastle, Penryn, and the Upper Loomis areas and provide adequate capacity to serve planned development in accordance with the SPMUD Collection System Master Plan. The Project objectives are to:

- Build and operate a diversion pipeline to address existing capacity issues as well as anticipated and planned growth.
- Use existing roadway alignments to minimize easement procurement negotiations.
- Attempt to maintain sufficient pipeline depth to serve adjacent properties by gravity, while attempting to minimize costs.
- Cross I-80 using bore and jack construction methods to minimize environmental impacts, permitting, cost, and schedule constraints.
- Avoid or mitigate known environmental constraints, such as protected trees, wetlands, and elderberry shrubs.
- Avoid placing sanitary sewer manholes within the limits of the 100-year floodplain close to the creek.
- Maintain the flow and functionality of the system;
- Implement and comply with the Town of Loomis General Plan goals, policies, and implementation measures, including:
  - Within the Town Center, the Town will continue to pursue strategies for providing adequate water and sewer services and drainage facilities for the areas designated for residential development (Housing Element Program A.1.2);
  - To achieve and maintain high levels of public services and facilities for Loomis residents, when appropriate through coordination with outside service agencies (Public Services, Facilities and Finance Element Goal 1); and
  - Loomis will work toward achieving and maintaining acceptable levels of municipal services, including public safety, roadway maintenance, and administrative services. Loomis will cooperate with regional public service agencies to attain adequate service levels for water distribution, sewerage services, flood management, and solid waste collection (Public Services, Facilities and Finance Element Policy 1).
- Implement and comply with the City of Rocklin General Plan goals, policies, and implementation measures, including:
  - To provide high quality public facilities and a full range of public services to all areas and residents of the City, and to ensure that new development does not cause the inefficient use of such facilities (Public Services and Facilities Element Goal).
  - Provide for adequate lead time in the planning of needed expansions of public services and facilities (Public Services and Facilities Element Policy PF-1).
  - Require that any development that generates the need for public services and facilities, including equipment, pay its proportional share of providing those services and facilities. Participation may include, but is not limited to, the formation of assessment districts, special taxes, payment of fees, payment of the City's Construction Tax, purchase of equipment, and/or the construction and dedication of facilities (Public Services and Facilities Element Policy PF-3).



- Require that construction of private development projects be coordinated with the construction of public facilities and services that are needed to serve the project (Public Services and Facilities Element Policy PF-5).
- Coordinate with public and private utility providers to ensure that their facility and service plans meet City needs (Public Services and Facilities Element Policy PF-40)..
- Request Placer County to require any development in the Rocklin Sphere of Influence to be compatible with City public service and facility standards (Public Services and Facilities Element Policy PF-45).

### 2.2.3 Preliminary Alignment Development

Five preliminary pipeline routes were developed between a connection point with the existing 8-inch sanitary sewer line located behind the Raley's shopping center north of I-80 and a termination point at Dias Lane north of the Rocklin 60 development. The proposed diversion pipeline would connect to a future pipeline in the Rocklin 60 development. Four of the preliminary routes were gravity driven and one route was gravity driven to a new lift station. Each of the routes crossed under I-80, Horseshoe Bar Road, and ran along Brace Road, and down Dias Lane. The five routes included:

- **Martin Lane Option by Gravity** – Routed from the existing sanitary sewer line, under I-80 and continuing southwest along the Turtle Island property; running southwest and parallel to I-80 to Martin Lane; continuing south on Martin Lane; running west on Brace Road and then south on Dias Lane to the northwest side of the Rocklin 60 property.
- **Master Plan Option by Gravity** – Similar to Martin Lane option until after Horseshoe Bar Road where the route turns southwest toward Betty Lane and along Betty Lane until Brace Road where the alignment turns west along Brace Road and then south on Dias Lane to the Rocklin 60 property.
- **Evans Drive Option by Gravity** – Routed from the existing sanitary sewer line, under I-80 and continuing southwest along the Turtle Island property until Evans Drive; bending west on Evans Drive and crossing Horseshoe Bar Road then turning southwest toward Betty Lane and continuing south along Betty Lane until Brace Road where the alignment runs west along Brace Road and then south on Dias Lane to the Rocklin 60 property.
- **Parallel to Creek Option by Gravity** – Following the same route as the Evans Drive option until Betty Lane and Brace Road where the alignment runs east on Brace Road and crosses Brace Road at Mann's property where the alignment continues diagonally in a southwest direction across Mann, Isheim and Grade properties, crossing Gade Lane to the Cokeley property and traveling west on the south side of the Cokeley property towards Dias Lane where the alignment then runs south on Dias Lane to the Rocklin 60 property.
- **Brace Road Pump Station Option by Gravity/Pump Station** – Similar to the Master Plan option until Betty and Brace Road where the alignment runs from the Brace Road Pump Station at the east end of Brace Road near the creek and runs west on Brace Road and turns south on Dias Lane to the Rocklin 60 property.

In September, 2014, a project status workshop discussion and fatal flaws analysis with representatives from SPMUD, the Town of Loomis, and WaterWorks Engineers resulted in the elimination of the Martin Lane option because of the additional length of the pipeline, the number of private properties affected by the alignment, higher cost, and the lack of service to the Turtle Island property. The fatal flaws analysis found that the Evans Drive Option was considerably longer than the Master Plan Option and was therefore more expensive. The Parallel to the Creek Option was found to have environmental constraints on the Turtle Island Property north of Brace Road as well as having a pipeline length longer than the

Master Plan Option. Based on the fatal flaws analysis, the preliminary routes were modified, combined, and/or refined to create three potential alternatives, which were further studied in the 2014 SPMUD Loomis Diversion Route Study/14-039 Route Study.

The 2014 SPMUD Loomis Diversion Route Study/14-039 Route Study analyzed in detail three potential alignment routes as shown in Figure 3: Alternative I (Master Plan Option by Gravity), Alternative II (Parallel to Creek Option by Gravity), and Alternative III (Brace Road Pump Station Option).

- **Alternative I** would run from the existing sanitary sewer line, under I-80 and continuing southwest along the Turtle Island property, crossing Horseshoe Bar Road and turning southwest toward Betty Lane where the alignment would continue south to Brace Road and then west along Brace Road and south on Dias Lane to the sanitary sewer manhole connection at the northwest side of the Rocklin 60 property.
- **Alternative II** would run from the existing sanitary sewer line, under I-80 and continuing south along the Turtle Island property, bending west on Evans Drive and crossing Horseshoe Bar Road; running southwest across Turtle Island property parallel to the creek and then turning south and crossing Brace Road, running parallel to the creek and turning west through the Dickson Property; continuing south along Dias Lane to the sanitary sewer manhole connection at the northwest side of the Rocklin 60 property.

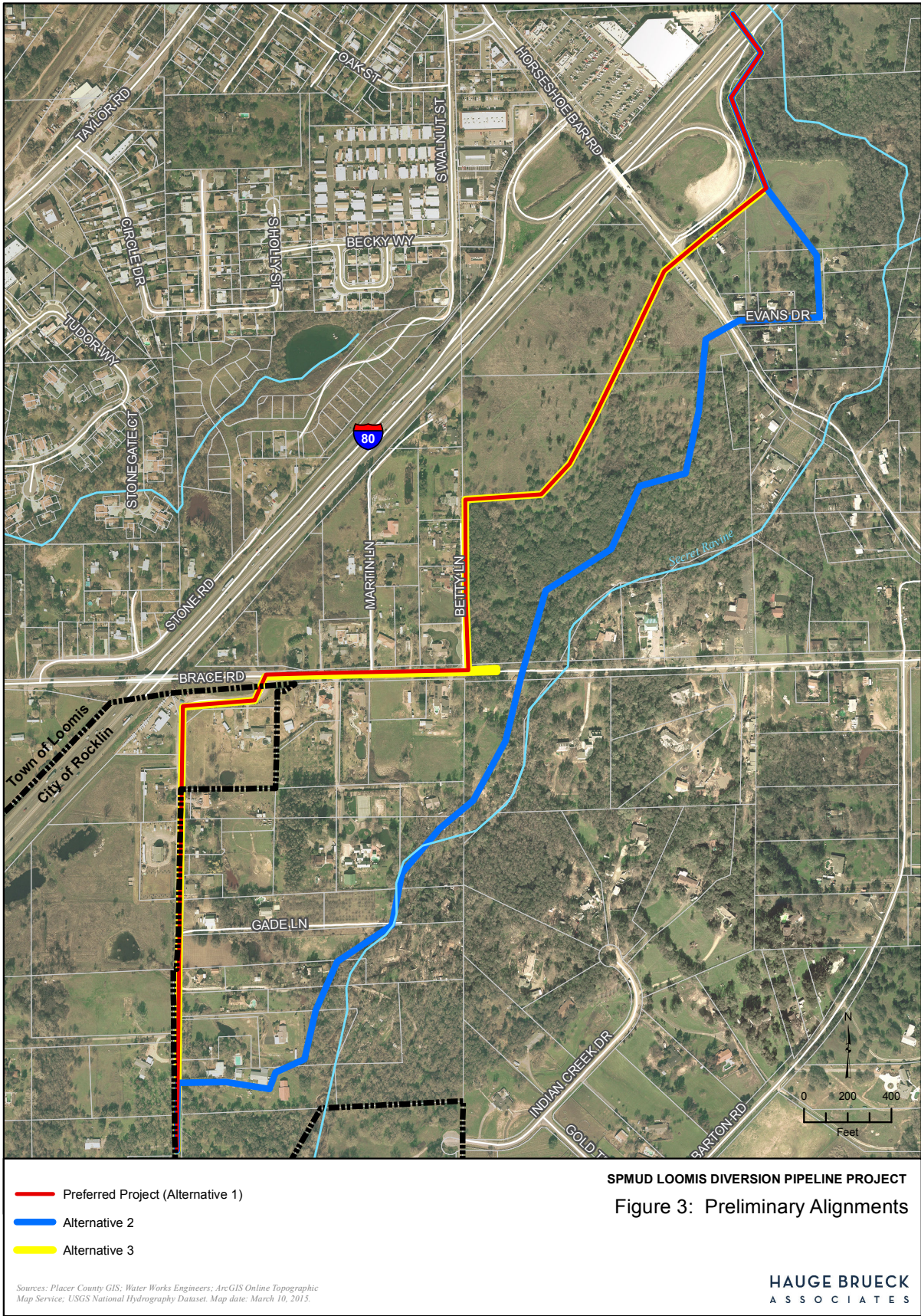
Two options were studied for both Alternatives I and II in regard to pipeline sizes and slopes to meet near-term 2020 flows (Option A) and long-term 2060 lower bound flows (Option B). A third option (Option C) to have one pipe size between the two connection points at the steepest possible slope was studied for Alternative I.

Alternative III was broken into three options, each of which would serve the near-term and long-term lower bound flows:

- **Alternative IIIA&B** (Master Plan to Brace Road Pump Station) is similar to Alternative I until Betty and Brace Road, Alternative IIIA&B runs east to Brace Road Pump Station; continues west on Brace Road via sewer forcemain; turns south on Dias Lane to the downstream SSMH connection at the northwest side of the Rocklin 60 property. This option will serve.
- **Alternative IIIC&D** (Parallel to Creek to Brace Road Bridge Pump Station) is similar to Alternative II until North of Brace Road, Alternative IIIC&D runs east to Brace Road Pump Station, continues west on Brace Road via sewer forcemain, then runs south on Dias Lane to the downstream SSMH connection at the north-west side of the Rocklin 60 property.
- **Alternative IIIE&F** (Parallel to Creek to Brace Road by Gravity) is similar to Alternative II until north of Brace Road, where it runs west via gravity flow towards Brace Road and Dias Lane, and then runs south on Dias Lane to the downstream SSMH connection at the north-west side of the Rocklin 60 property

The 2014 SPMUD Loomis Diversion Route Study/14-039 Route Study analyzed each alignment based on specific design criteria and constraints. The criteria included quantifiable “hard costs” from construction related factors such as materials, equipment, labor, construction methods, traffic controls, and other factors. In addition to hard costs, the alternatives were analyzed in regard to “soft costs” such as right of way procurement, environmental permitting, operation and maintenance requirements, inspection, and outside agency coordination.







The proposed alignment (Alternative I of the 2014 SPMUD Loomis Diversion Route Study/14-039 Route Study) was selected, based on the analysis in the Diversion Route Study, due to lower comparative cost; reduced risk during the right-of-way process as a result of having the highest percentage of alignment within the existing Town right-of-way, less private easement procurement, and potential to partner the project with other stakeholders; and less environmental impact and associated cost.

## **2.3 Site Characteristics**

### **2.3.1 Setting**

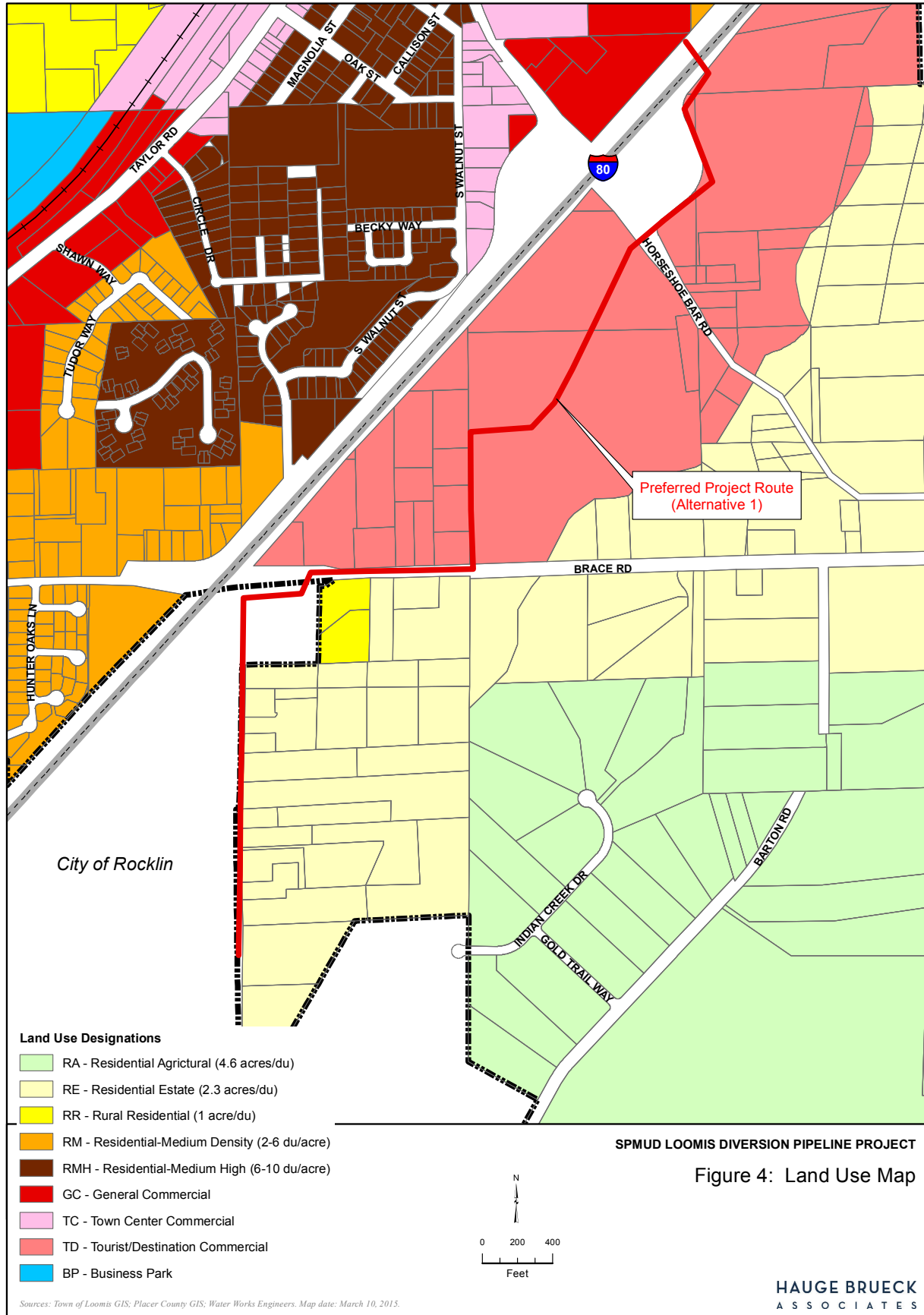
The Project site is flat, with an elevation range from about 320 feet to 400 feet above mean sea level (Figure 2).

#### **2.3.1.1 *Current Land Use, Zoning, Use, and Structures***

The Project alignment is identified in the Town of Loomis General Plan and Zoning Map as General Commercial (CG), Tourist/Destination Commercial (CT), Residential Estate (RE), and Rural Residential (RR). In the City of Rocklin, the alignment is zoned Unclassified (UN) and Residential Single Family 12,500 sf minimum lots (R1-12.5), while the Rocklin General Plan identifies the affected parcels as Low Density Residential (LDR) and Medium Density Residential (MDR). The surrounding land use designations and zoning are depicted in Figure 4.

Existing uses adjacent to and within the vicinity of the Project alignment include commercial and residential uses to the north and west, residential agricultural uses to the east, low and medium density residential to the south and recreation and conservation to the southwest. The northernmost portion of the project area north of I-80 is well developed with commercial and residential uses, however the majority of the project area consists of undeveloped land or rural residential uses.

Portions of the alignment pass through private property, some of which is developed, while other portions of the alignment would be located within roadway right-of-way. Private residences are located along and near the alignment. Secret Ravine Creek is located southwest of the alignment. The undeveloped Turtle Island property between I-80 and Secret Ravine Creek includes wetlands and elderberry shrubs, as well as other trees and vegetation. Low-density residential uses are located along Betty Lane, Brace Road, and Dias Lane, with homes near the roadways.



## 2.4 Project Features

The Project consists of approximately 7,200 linear feet (LF) of 15 to 24-inch PVC or VCP gravity sewer line. Six alignments comprise the proposed pipeline route: I-80, 1A, 1B, 2A, 3A, and 3E. The route begins upstream with the existing sanitary sewer manhole #13-008 behind the Raley's shopping center and crosses I-80 with a minimum depth of 10 feet cover over the pipe casing. From there, the pipeline runs south within the existing access/frontage road located on the Turtle Island property and crosses Horseshoe Bar Road via trenchless construction. The pipeline continues southwest across the Turtle Island property to Betty Lane, continuing south parallel to Betty Lane within the Turtle Island property to Brace Road. From Brace Road, the pipeline runs west on Brace Road and then south on Dias Lane to the downstream connection at the Rocklin 60 sanitary sewer manhole. The Project site plan (Figure 5) shows the location and arrangement of these facilities on the site (Alternative I from the 2014 SPMUD Loomis Diversion Route Study/14-039 Route Study). Two staging areas are anticipated, each requiring approximately 1-acre, with one located north of Brace Road and the second located along Dias Lane. Pipe laydown areas will be located along the trenches within the 40-foot temporary construction easement area. The Project includes the following components shown in Table 1.

<b>Table 1</b>			
<b>Project Alignments and Features</b>			
<b>Alignment</b>	<b>Length (LF)</b>	<b>Pipe Diameter</b>	<b>Features</b>
I-80 – From the sanitary sewer manhole 13-008 connection, crossing I-80 at a 15-degree angle to the perpendicular, ending 10 feet from the Caltrans property and into the back gate of the Bartlett parcel within the existing utility easement.	220	15 to 16-inch	Bore and Jack
1A – From I-80 alignment running 5-15 feet from and parallel to the Caltrans I-80 on/off-ramp property in a southwest and then southeast direction, ending 75 feet into the Turtle Island property.	690	15 to 21-inch	2 manholes Open Cut
1B – From 1A alignment running parallel to Caltrans I-80 on/off-ramp southwest heading 10 feet inside the edge of the Steelman parcel, crossing Horseshoe Bar Road 50 feet south of the on/off-ramp T intersection, ending 50 feet into the Turtle Island property.	600	15 to 21-inch	1 manhole Open Cut and Bore and Jack under Horseshoe Bar Rd.
2A – From 1B alignment running southwest across the center of Turtle Island, turning west to avoid elderberry shrubs and wetlands with a 20-foot buffer, turning at a right angle 10 feet from the Williams parcel and continuing south parallel to Betty Lane 10 feet into the Turtle Island property, ending in the shoulder at the northeast corner of Brace Road and Betty Lane.	2,300	15 to 21-inch	6 manholes Open Cut Avoidance of elderberry and wetlands
3A – From 2A alignment running west along the center of the west-bound lane of Brace Road ending at the Dias Lane T-intersection.	925	18 to 24-inch	4 manholes Open Cut in roadway ROW
3E – From 3A alignment turning southwest and then south along the center of Dias lane, ending 150 feet north of the Dias Lane bend and connecting with the future Rocklin 60 sanitary sewer manhole.	2,500	18 to 24-inch	5 manholes Open Cut in Roadway ROW
<b>Totals:</b>	<b>7,235</b>	<b>--</b>	<b>--</b>







### **2.4.1 I-80 Alignment**

Starting at a connection at sanitary sewer manhole 13-008, this alignment crosses under I-80 using bore and jack trenchless construction and ends on the existing 50-foot public utility easement on parcel 043-180-045, just north of the Turtle Island property. The length of this segment is 221 LF and the pipe would consist of 15- or 16-inch VCP or PVC pipe in a 30 to 33-inch welded steel casing pipe. At least 10 feet of cover would occur from the ground level to the top of the casing. The pipeline is designed at a slope of 0.0017 with a conveyance capacity of 2.25 MGD. This segment is proposed within Caltrans ROW and a 20-foot permanent easement would be obtained from Caltrans for the crossing. The bore and jack method requires two pits on either end of the segment to install the pipe and retrieve machinery. The insertion pit would measure 50 feet by 20 feet (1000 square feet) and the extraction pit would measure 20 feet by 20 feet (400 square feet).

### **2.4.2 Alignment 1A**

Alignment 1A begins with a new sanitary sewer manhole (#1) and runs along the existing access road on parcel 043-180-045 and 043-120-004 south of the I-80 crossing. This segment ends at a new sanitary sewer manhole on the existing access road. This segment consists of 15- to 21-inch PVC or VCP pipeline installed at a slope of 0.0015 for 690 LF, with depths ranging between 6 and 10 feet. This segment will be able to convey up to 4.28 MGD with a 21-inch pipe. A 20-foot wide permanent easement and a 40-foot wide temporary construction easement is proposed on the Turtle Island property. This segment has been located along the existing dirt access road to minimize tree and vegetation removal. Project staging would be located near this area north of Horseshoe Bar Road, occupying approximately 43,560 square feet.

### **2.4.3 Alignment 1B**

Alignment 1B begins with a new sanitary sewer manhole at the termination of Alignment 1A and traverses the Turtle Island property and parcel 043-120-013 southward toward Horseshoe Bar Road. Alignment 1B is proposed within the existing dirt road located on both properties. This 600 LF 15- to 21-inch PVC or VCP pipeline would be installed at a slope of 0.0015 with depths ranging from 10 to 20 feet. Bore and jack trenchless construction method would be used to install 60 LF of the pipeline beneath Horseshoe Bar Road. The portion of the alignment within the Turtle Island property will require a 20-foot wide permanent easement and a 40-foot temporary construction easement. The trenchless installation of the pipeline at Horseshoe Bar Road would be located within Town ROW; however additional temporary construction easement will be required on the Turtle Island property to accommodate the jacking and receiving pits. The insertion pit would measure 50 feet by 20 feet (1000 square feet) and the extraction pit would measure 20 feet by 20 feet (400 square feet).

### **2.4.4 Alignment 2A**

Alignment 2A begins with a new sanitary sewer manhole at the termination of Alignment 1B on parcel 043-120-014 and follows a southwest direction diagonally through the Turtle Island property to parcel 043-130-001 where the alignment travels south from the corner of Betty Lane and the Turtle Island property to Brace Road. This 2,260 LF 15- to 21-inch PVC or VCP pipeline would be installed at a slope of 0.0015 up to Betty Lane and 0.0216 along Betty Lane with depths ranging from 10 to 20 feet. This alignment will be able to convey up to 4.28 MGD with a 21-inch pipe. A portion of Alignment 2A parallel to Betty Lane will cross an existing, 30-foot-long seasonal wetland. It is estimated that 50 trees would require removal along this alignment. The location of the pipeline is designed to avoid removal of



elderberry shrubs and wetlands. This alignment is located entirely within the Turtle Island property and a 20-foot permanent easement and 40 foot temporary construction easement is required.

Options for Alignment 2A (under Alternative I of the Route Study) are included to minimize potential impacts and mitigation through the undeveloped Turtle Island property. SPMUD, in coordination with the property owner and developer, would locate the pipeline in future planned right-of-way. Since there are no current development plans identifying future right-of-way on the property, this IS/MND allows flexibility in locating Alignment 2A through the Turtle Island Property to avoid elderberry and wetland disturbance, and minimize tree removal. The location of alignment 2A will be defined through the environmental analysis of this IS/MND, which will identify biologically sensitive areas to be avoided. Appendix B includes a map showing the location of sensitive biological resources and where Alignment 2A can be located to avoid or minimize impacts to those resources.

### **2.4.5 Alignment 3A**

Alignment 3A begins with a new sanitary sewer manhole at the termination of Alignment 2A on the Turtle Island property near the intersection of Betty Lane and Brace Road. Within this alignment, the pipeline would be located along the center of the westbound lane on Brace Road, ending at the intersection of Dias Lane and Brace Road with a new sanitary sewer manhole. This 925 LF 18- to 24-inch PVC or VCP pipeline would be installed at a slope of 0.0015 with depths ranging from 10 to 22 feet. This alignment includes the deepest pipe segment of the proposed route. This alignment will be able to convey up to 5.71 MGD with a 24-inch pipe. No additional permanent easement is required for this alignment because it is located within the Town ROW on Brace Road. A temporary construction easement may be necessary and additional traffic control and detour will be needed. The alignment crosses existing 12-inch and 30-inch waterlines and other utilities in the vicinity include gas and overhead electric/communications lines on Brace Road.

### **2.4.6 Alignment 3E**

Beginning at the new sanitary sewer manhole connection with Alignment 3A at Dias Lane and Brace Road, Alignment 3E travels south on Dias Lane to the 60 connection point within the City of Rocklin. This 2,500 LF 18- to 24-inch PVC or VCP pipeline would be installed at a slope of 0.0015 up to the connection with a new sanitary sewer manhole with depths ranging from 10 to 15 feet. Between the new manhole and the Rocklin 60 connection point, the slope would be 0.2660 due to the depth of the Rocklin 60 connection. This alignment will be able to convey up to 5.71 MGD with a 24-inch pipe. Permanent easements are not required for the northern portion of Alignment 3E, but 20-foot permanent easement is needed along Dias Lane from Gade Lane to the Rocklin 60 connection point. The 40-foot wide temporary construction easement may impact existing fencing and landscaping on the affected private properties. Utility coordination is necessary along this alignment due to the presence of existing water lines and overhead electric lines on Dias Lane. Additional staging area may occur, up to 43,560-feet, if the contractor requires. Since Dias Lane is a 12-foot roadway is in poor condition, roadway restoration is anticipated for Dias Lane.

### **2.4.7 Easements**

Temporary and permanent access easements will be obtained on affected parcels. Temporary construction easements are necessary to allow adequate area for equipment movement, pipe laydown area, and access and materials storage. The temporary easement will be 40 feet wide, totaling approximately 153,400 square feet (3.5 acres). Permanent access easements (PE) will be 20 feet wide and are required on private property totaling approximately 86,600 square feet (2.0 acres).

A public road encroachment permit is required for the 125,300 square feet (2.9 acres) of 50-foot wide work area needed for the I-80 and Horseshoe Bar Road crossings and alignment within the Brace Road and Dias lane ROWs.

## **2.4.8 Operation Plans**

The Project is by gravity flow requiring little preventative maintenance. Cleaning and CCTV inspections of the pipeline would occur once every 10 years. The pipeline manufacturer indicates a pipeline lifespan of 50 years for polyvinyl chloride (PVC) pipe and 100 years for vitrified clay pipe (VCP). Operations costs are estimated at \$2,800 annually.

The pipeline is designed to accommodate between near-term (2020) and long-term (2060) flows. Pipe sizing for near-term conditions would range from 15 to 18 inches and sizing for long-term conditions would range between 21 and 24 inches. Therefore, the pipeline will be able to accommodate between 1.13 and 2.25 mgd (peak flow) at I-80, 1.42 and 4.28 mgd north of Brace Road and 1.78 and 5.71 mgd south of Brace Road.

## **2.5 Phasing and Construction**

### **2.5.1 Construction Schedule**

Construction of the diversion pipeline is expected to occur over a multi-year period with completion occurring as area development is approved. The construction of the first phase of the Project would begin once applicable approvals, easements, right-of-way, and permits have been obtained. Construction of the Project segments would occur as planned and proposed development occurs within the alignment area. Once construction is completed and connections to existing pipelines established, the Project would be in operation and maintained by the South Placer Municipal Utility District.

### **2.5.2 Construction Phases and Duration**

Project construction is likely to occur in three separate phases based on the timing of planned and proposed development. Phase 1 includes the southern terminus of the alignment up to Horseshoe Bar Road (Segments 2A through 3E). Phase 2 will include Segments 1A and 1B between Interstate 80 and Horseshoe Bar Road. The timing of this phase will be dependent on development of the Turtle Island property. Phase 3 consists of the I-80 crossing. The timing of each phase will not overlap and gaps may occur between the completion of one phase and the start of another. Each phase consists of clearing and grading, trenching, pipeline installation, coverage and restoration.

- Phase 1 (2A through 3E) = 4-5 months
- Phase 2 (1A and 1B) = 4-6 months
- Phase 3 (I-80 crossing) = 2-4 months

Construction would include development of civil plans. Access corridors, buried electrical lines, irrigation lines and the locations of Project facilities would be flagged and staked in order to guide construction activities. Sensitive habitat areas, including the wetlands and elderberry shrubs would be temporarily fenced to prevent construction activity from occurring in these areas, except where avoidance is not possible. The total ground disturbance, including previously disturbed areas, would be approximately 289,320 square feet (6.7 acres). Approximately 86,600 square feet (2.0 acres) would become permanent easement on private property.

The majority of the construction would occur at a rate of approximately 100 feet per day. Trenches would be exposed while construction crews are actively working in the area. Trenches not under active construction would be covered with metal plates to maintain safety and allow for traffic circulation.

### **2.5.3 Construction Methods**

Two-thirds of the diversion pipeline will be constructed on private property, private road, or undeveloped areas using open-cut construction method and one-third of the pipeline will be construction on public right-of-way using open cut construction method. The I-80 and Horseshoe Bar crossings will be constructed using bore and jack trenchless construction method. Limited construction access would occur within the vicinity of elderberry, oak trees, wetlands, and drainage areas.

#### **2.5.3.1 *Open-cut Method***

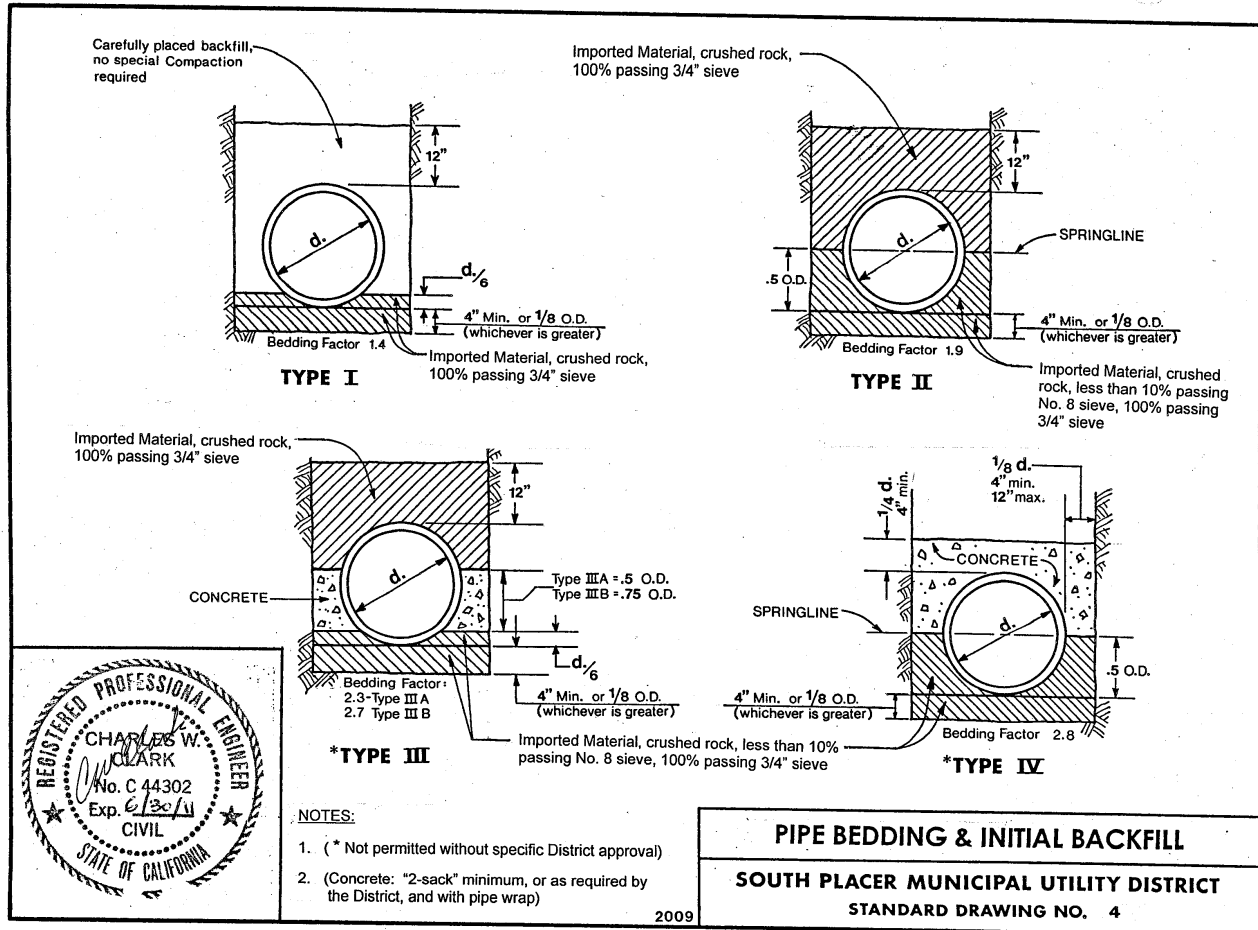
Most of the pipeline will be constructed with open-cut method and typical trench sections for open-cut portions will be in conformance with SPMUD standards. Figure 6 shows typical detail for pipe bedding and initial backfill, which will be further refined and modified during the design phase of the project. The project proposes a minimum of 6-inch bedding below the pipe, with 9-inch clearance on both sides of the pipe, creating a typical trench width of up to 3.5 feet for a 15-inch diameter pipe and up to 4 feet for an 18-inch diameter pipe. A wider trench is required for pipes deeper than 10 feet and the trench depth depends on the location of the pipeline in open land vs. a restricted easement vs. a paved road. Clearance on the side of the pipe can be reduced by 6- to 9-inches if a slurry backfill of a two-sack concrete mix is used to meet compaction or settlement requirements.

#### **2.5.3.2 *Trenchless Method***

Auger boring and jacking trenchless construction method would be used at the I-80 and Horseshoe Bar crossings. This method uses a rotating cutting head to create a horizontal bore for installation of casing pipe ranging from 4 to 72 inches in various soil conditions. Two pits are dug on either side of the alignment for drilling machinery and lay down area for the casing materials. Typical insertion pits are 50 feet long by 20 feet wide and extraction pits are 20 feet long by 20 feet wide. A continuous helical auger flight, fitted within the casing, transfers cuttings from the cutting head to the jacking pit. Hydraulic jacks install a steel casing into place behind the cutting head to prevent collapse of the borehole. Once the casing pipe is installed, the carrier pipe is inserted within the casing pipe using casing spacers following removal of the bore and jack equipment.

The Caltrans I-80 crossing would have a minimum cover of 10 feet. Caltrans requires a welded steel pipe casing at the I-80 crossing. The I-80 crossing will include a 16-inch PVC carrier pipe and a 30-inch welded steel casing at 3/8-inch thickness. Low laying vegetation will be kept intact, as feasible, during construction to help with dust control and water run-off. A non-noxious ground cover native to the area will be used to control dust and issues arising from runoff.

Figure 6: Typical Open Cut Pipeline Construction Detail



### 2.5.3.3 Microtunneling Method

SPMUD may utilize a microtunneling method on a portion of Brace Road. This method uses a remotely operated microtunnel boring machine to create a tunnel rather than an open trench. Pipes are pushed behind the machine as the boring machine advances from the starting shaft to the reception shaft. A slurry is used in tunneling methods to address friction. This method is considered in areas where the trench depth is high.

### 2.5.3.4 Staging

Equipment and materials will be located in the designated staging areas along the alignment. Staging would occur within 50 feet of either side of the alignment. In areas of sensitive biological resources, staging would be limited and protected habitat or resources would be fenced to avoid disturbance in sensitive areas. The main staging area would be located in the vicinity of Horseshoe Bar Road; however, the contractor may locate an additional staging area along the southern portions of the alignment, if a property owner willingly enters into an arrangement. The construction specifications will expressly prohibit staging areas within an area containing sensitive resources, including biological, cultural, hydrological, or others. The staging areas will

be prepared to allow pipeline placement, other materials, and equipment and will occupy 43,560 square feet or up to a total of 2 acres of land along the alignment.

### **2.5.3.5 Surface Restoration**

Following pipeline installation, surface restoration will occur in accordance with Town of Loomis standards. Horseshoe Bar Road, Brace Road, and Dias Lane will be affected by the project and will be resurfaced with a seal coat. Transverse crossings of these roadways will include Type 2 surface restoration with a minimum of 3 inches asphalt concrete over 8 inches asphalt base or must match the existing roadway section with chip seal or other asphaltic material over the paved section of the road. Longitudinal pipe installations on Horseshoe Bar Road, Brace Road, or Dias Lane will fall under Type 2 surface restoration with a minimum on 3 inches asphalt concrete over 8 inches asphalt base or must match the existing roadway section with a minimum of 2 inches chip seal or other asphaltic material on either side of the trench limit over the paved section of the road. Where the pipeline is within 2 feet of the roadway fog line, surface restoration will be required from the edge of the trench to the shoulder of the roadway. Due to the existing poor condition of Dias Lane, the project proposes to restore the entire roadway with chip seal or other asphaltic material as required by the Town of Loomis.

### **2.5.3.6 Grading, Excavation, and Coverage**

The total temporary disturbance area would include 289,320 square feet (6.7 acres) of land, of which 152,000 sf (3.5 acres) would be newly disturbed and 137,320 sf (3.2 acres) would be land currently disturbed as existing roadway (Brace Road and Dias Lane). Approximately 13,770 cubic yards (cy) of material would be excavated, of which 13,080 cy would be reused either in the trenches (75%) or on the Turtle Island property (20%). The remaining 688 cy (5%) would be hauled off-site to be reused within a mile of the project area. The Project proposes 18 new sanitary sewer manholes. The nine manholes proposed within Brace Road and Dias Lane would not result in new coverage as the 325 sf of manhole coverage would be located within the existing roadway coverage. The nine manholes proposed north of Brace Road would result in 300 sf of new coverage.

### **2.5.3.7 Traffic Control**

Traffic control will be implemented for the project to maintain safety of the traveling public as well as the safety of the construction crews as the alignment will be located within public right-of-way. Traffic control will be implemented along Dias Lane, Brace Road, and Horseshoe Bar Road. At a minimum, traffic controls will include construction signage, flagging, and limited access around the active construction area. SPMUD will coordinate with residents regarding construction schedule and access. The traffic control plan will follow the Town of Loomis and Placer County standards. A site-specific traffic control plan will be incorporated into the construction specifications.

## **2.5.4 Construction Workers, Hours and Equipment**

The on-site workforce would consist of laborers, supervisory personnel, support personnel and construction management personnel. Construction would generally be conducted during day light hours, five days a week. Construction activities would be conducted in a manner consistent with Town requirements regarding construction and noise disturbance. In accordance with the Municipal Code

(Section 13.30.070), construction hours are limited to 7:00 am through 7:00 pm Monday through Friday and 8:00 am to 7:00 pm on Saturdays.

Primary equipment for open-cut construction includes a large excavator, back hoe, rock hammer, compactor, haul trucks, delivery trucks, dump trucks, a water truck, striping machine, paving machine, and traffic control equipment. Duration of use will be approximately 4 months. Primary equipment for bore and jack construction includes a large excavator, boring machine, back hoe, rock hammer, compactor, haul trucks, delivery trucks, a water truck, and traffic control equipment. Duration of use for bore and jack operations will be approximately 2 months.

## **2.6 Regulatory Compliance Measures**

Regulatory compliance measures are included in the description of the Project to minimize potential environmental impacts. Regulatory compliance measures include measures such as installation of Best Management Practices (BMPs), agency permit requirements, and air quality protection measures and are considered part of the Project under CEQA processes because compliance is required to construct and operate the Project. Regulatory compliance measures of the Project are discussed in the sub-sections below, including compliance with Placer County Air Pollution Control District (PCAPCD) Rules.

### **2.6.1 Implement BMPs to Reduce Air Pollutant Emissions**

General Plan Conservation of Resources Element Policy Air Quality 1.a states the that Town will contribute toward the attainment of State and Federal air quality standards in the Sacramento Valley Air Basin and will achieve this in part by requiring site preparation and development activities to incorporate effective measures to minimize dust emissions and construction vehicle and equipment emissions. Dust control shall follow the latest version of the PCAPCD Fugitive Dust Control Measures (Rule 228).

- Maintenance of Public Thoroughfares - public thoroughfares shall be kept clean of silt, dirt, mud, and debris. Track-out controls shall include vehicle cleaning.
- Traffic Limits - Traffic speeds on unpaved surfaces shall be limited to 15 miles per hour or less.
- Wind Restrictions - Grading and earthmoving operations shall be suspended when wind speeds (including instantaneous gusts) are high and dust is impacting adjacent properties.
- Haul truck covering – Trucks used to haul soil or aggregate materials during construction shall be maintained to prevent spillage and the material will be covered or wetted to prevent the generation of dust.
- Watering - Construction areas, including storage piles, will be watered as needed to reduce fugitive dust when disturbed for land clearing, excavation or grading.
- Geographic Ultramafic Rock Units/Naturally-Occurring Asbestos – In geographic ultramafic rock units, or when naturally-occurring asbestos, ultramafic rock, or serpentine is disturbed, all equipment must be washed down before moving onto a paved public road. Upon completion of the project, disturbed areas shall be stabilized using vegetative cover, one foot on non-asbestos-containing material, paving, or other measure sufficient to prevent wind speeds of 10 miles per hour or more from causing visible dust emissions.

## 2.6.2 Time of Day Construction Restrictions

This compliance measure restricts construction activities to between the hours of 7:00 AM and 7:00 PM Monday through Friday and 8:00 am to 7:00 pm on Saturdays to minimize noise impacts to sensitive receptors per Municipal Code Section 13.30.070.

## 2.6.3 Construction Equipment Muffling

General Plan Noise Element Policy Noise 19 requires construction activities adjacent to residential units be limited as necessary to prevent adverse noise impacts. Shrouding or shielding of impact tools and muffling or shielding intake and exhaust ports on construction equipment will be implemented to reduce construction noise levels.

## 2.6.4 Stormwater Pollution Prevention Plan

Ground disturbance within the Project area will exceed one acre and is subject to the construction stormwater quality permit requirements of the NPDES program. The Town must obtain this permit from the Regional Water Quality Control Board and provide evidence of a state-issued WDID number or filing of a Notice of Intent (NOI) and fees prior to start of construction. A SWPPP is required under Construction General Permit Order NO 2009-0009-DWQ for discharges of stormwater runoff associated with construction activity involving land disturbance. The SWPPP will include temporary fencing, best management practices (BMPs), water quality protection measures, staging ingress/egress practices, and other construction-related details. The SWPPP will be designed to address the following objectives:

1. All pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled;
2. Where not otherwise required to be under a Lahontan permit, all non-storm water discharges are identified and either eliminated, controlled, or treated;
3. Site BMPs are effective and result in the reduction or elimination of pollutants in storm water discharges and authorized non-storm water discharges from construction activity to the Best Available Technology Economically Achievable (BAT)/Best Conventional Pollutant Control Technology (BCT) standard. BMPs must be designed according to the California Stormwater Quality Association Stormwater Best Management Practice Handbooks for Construction, for New Development/Redevelopment, and/or for Industrial and Commercial, and/or other similar source;
4. Calculations and design details as well as BMP controls for site run-off are complete and correct, and
5. Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.
6. To demonstrate compliance with requirements of the NPDES permit, the Qualified SWPPP Developer will include information in the SWPPP that supports the conclusions, selections, use, and maintenance of BMPs.
7. The discharger will make the SWPPP available at the construction site during working hours while construction is occurring and shall be made available upon request by a State or Municipal inspector. When the original SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, current copies of the BMPs and map/drawing will be left with the field crew and the original SWPPP shall be made available via a request by radio/telephone.

### 2.6.5 Utility Coordination

Coordination will occur with utility providers prior to construction regarding the exact location of each underground utility line within the alignment, including utility crossing from the Placer County Water Agency, Pacific Gas and Electric and the Town of Loomis. The “ABC Plan” will be used to coordinate with utility providers. SPMUD will use Underground Service Alert North’s Design Inquiry Tool to develop a list of contacts and utility providers in the area. Then “A” letters are sent with preliminary plans showing the project limits, roads, and features to each utility to provider for markup. This step has been completed during development of the route study and was used to determine pipeline route alternatives. Next, “B” letters are sent to the utility providers to identify conflicts with location or schedule and to determine if relocation is necessary. This occurs prior to construction during the engineering phase. Finally, “C” letters are sent to the utility providers with final plans showing the proposed utility, relocations, and construction. Utility providers within the project area include:

- PG&E – Overhead electric, underground electric, and gas
- Placer County Water Agency – Water
- Town of Loomis, City of Rocklin, and Placer County – Storm drain and roads
- SMPUD – sewer
- Private Properties – Irrigation and roads
- Wave Broadband – Fiber Optics
- AT&T – Overhead cable, underground cable

Special inspection is not required for utility crossings along the alignment. Underground and overhead lines will be shown on project construction specifications within the civil engineering plans and the pipeline design and specifications will address the location of the existing utilities, location of the proposed pipeline in relation to the existing utilities, and the required separation distance and spacing between utilities.

Construction contractors will contact Underground Service Alert (USA 811/1-800-227-2600) to ensure buried lines are properly marked and located. Utility companies will be provided with an accurate schedule noting when construction occurs near their facilities. Utility facilities will be identified on construction specifications.

The location of the alignment within public right-of-way or private roadways will require agency coordination and special inspection. An encroachment permit and detailed review will occur with Caltrans for the trenchless (bore and jack) construction of the I-80 crossing. Another encroachment permit will be obtained from the Town of Loomis for the trenchless (bore and jack) construction at Horseshoe Bar Road.

The specifications shall identify points of contact for the contractor and the utility companies, Caltrans, and the Town of Loomis, and measures, specific to each utility/entity, to be taken to rectify damage. If service is interrupted due to damage, construction will cease in the vicinity of the incident, and work will begin immediately to repair the damage at the contractor’s expense. If damage occurs to infrastructure that does not affect service levels, the infrastructure will be repaired following construction.

### 2.6.7 Inadvertent Discovery Actions

If, during construction activities, unusual amounts of non-native stone (obsidian, fine-grained silicates, basalt), bone, shell, or prehistoric or historic period artifacts (purple glass, etc.), or if areas that contain dark-colored sediment that do not appear to have been created through natural processes are discovered,



work will cease in the immediate area of discovery and a professionally qualified archeologist will be contacted immediately for a on-site inspection of the discovery.

If any bone is uncovered that appears to be human, work will cease in the immediate area of discovery, and the Placer County Coroner must be contacted by law (State Health and Safety Code Section 7050.5 and Public Resource Code Section 5097.98). If the coroner determines that the bone most likely represents a Native American interment, the Coroner has 24 hours to contact the Native American Heritage Commission in Sacramento so that they can identify the most likely descendants, who will then help determine what course of action shall be taken in handling the remains.

## **2.7 Required Permits and Approvals**

The Project is primarily in the Town of Loomis, and the Town is the Lead Agency for the preparation of environmental documentation for the Project under Article 4, §15051 of CEQA. After adoption of the Mitigated Negative Declaration of Environmental Impact (MND), the Town Council will use the information and analysis in the MND to make decisions regarding the Project. Because a portion of the Project is located within the City of Rocklin, the City serves as a responsible agency.

The Lead Agency must consult with and seek comments from public agencies with jurisdiction by law with respect to projects including neighboring cities and counties, and federal, state, and local agencies that exercise authority over resources that may be affected by the Project (CEQA Guidelines §15073). A Responsible Agency has responsibility for carrying out or approving an aspect of a project and complying with CEQA (CEQA Guidelines §15041[b]), §15042, and §15381). Responsible agencies may need to review the MND or conduct separate environmental analyses and documentation for aspects of the Project. Trustee Agencies have jurisdiction by law over certain natural resources affected by a project that are held in trust for the people of California (CEQA Guidelines §15386). The following summarizes Responsible or Trustee agencies, or agencies with jurisdiction by law, for the Project.

### **2.7.1 Federal Agencies**

- The U.S. Army Corps of Engineers (Corps), responsible for permitting impacts to jurisdictional wetlands and other waters of the United States (WoUS), including perennial and seasonal streams, wetlands, and lakes under the federal Clean Water Act (CWA) §404;
- United States Environmental Protection Agency (USEPA), responsible for enforcement water and air quality laws and regulations; and
- United States Department of Fish and Wildlife (USFWS), responsible for permitting incidental take of federally-listed Threatened and Endangered Species under the federal Endangered Species Act, species protected by the Bald and Golden Eagle Protection Act, and nesting bird species listed under the Migratory Bird Treaty Act (MBTA).

### **2.7.2 State Agencies**

- California Department of Transportation (Caltrans), responsible for impacts to state-regulated roadways and roadway encroachment.
- California Department of Fish and Wildlife (CDFW), responsible for impacts to wildlife under the California Endangered Species Act (CESA) and State Fish and Game (F&G) Code; rare plants under CESA and the California Native Plant Protection Act (CNPPA), and streams under F&G Code; and

- Regional Water Quality Control Board, responsible for water quality protection and issuance of Storm Water Pollution Prevent Plans (SWPPP) pursuant to the National Pollution Discharge Elimination System (NPDES), and responsible for federal CWA §401 Water Quality Certifications or Waivers.

### **2.7.3 Local Agencies**

- Placer County Water Agency – Design Review and Construction Inspection at utility crossing in Brace Road
- Placer County Air Pollution Control District (PCAPCD), responsible for air quality management and attainment of State and federal air quality standards;
- Town of Loomis Planning Department, Public Works and Engineering Department, and Town Council, responsible for Project planning and approval;
- City of Rocklin – Encroachment on Brace Road and Dias Lane.
- Town of Loomis Fire Protection District and Placer County Sheriff's Department, responsible for fire suppression and emergency response services.

### **2.7.4 Trustee Agencies**

In addition to the responsible agencies listed above, the MND will be used by “trustee agencies,” which are those state agencies having jurisdiction by law over natural resources that could be affected by the Project. There is one trustee agency expected to use the MND:

- California Department of Fish and Wildlife (CDFW), responsible for permitting impacts to:
  - Lakes, streams and associated riparian habitats under Lake or Stream Bed Alteration Agreements (LSAA) (Fish & Game Code §1602),
  - Rare plants under the California Native Plant Protection Act (CNPPA),
  - Fish and wildlife protected under Fish & Game Code, and
  - State-listed Threatened or Endangered species under the California Endangered Species Act (CESA).

### 3.0 Evaluation of Environmental Impacts

The following environmental analysis has been prepared using the CEQA Guidelines Appendix G: Environmental Checklist Form to complete an IS.

CEQA requires a brief explanation for answers to the Appendix G: Environmental Checklist except "No Impact" responses that are adequately supported by noted information sources.

Answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

The following CEQA direction applies to each checklist question.

- A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- "Less than Significant Impact" applies where the project creates no significant impacts based on the criterion or criteria that sets the level of impact to a resource,
- "Less than Significant Impact with Mitigation Incorporated " applies where the incorporation of mitigation measures has reduced an effect from potentially "Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
- "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is potentially significant, as based on the criterion or criteria that sets the level of impact to a resource.

#### I. Aesthetics

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Have a substantial adverse effect on a scenic vista?				√
b) Substantially damage scenic resources, including, but not limited to: trees, rock outcroppings, and historic buildings within a state scenic highway?				√
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			√	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				√

## Environmental Setting

The Project is located on undeveloped land and existing roadway right-of-way in the Town of Loomis and City of Rocklin. The Project site is located within residential and commercial land uses from I-80 to Dias Lane and traverses existing roadways, developed areas and undeveloped areas planned for development. From the southern terminus up to Brace Road, the alignment would be located in existing paved roadway. From Brace Road to I-80, the pipeline alignment crosses undeveloped land that is planned for commercial and residential development. This portion of the alignment includes grassland, wetland features, trees and shrubs. The alignment crosses under I-80, with the northern terminus located at the Raley's shopping center within an existing commercial area. There are no designated scenic vistas located within the Project area. Residences are visible along the alignment south of I-80, commercial uses are visible to the north of I-80.



*View facing south toward I-80 at I-80 crossing*



*View facing north on Horseshoe Bar Road at I-80 onramp*



*View across Turtle Island Property*



*View facing south on Betty Lane*





View facing east on Brace Road at Martin Lane



View facing south on Dias Lane near Brace Road

### **I.a Substantial Adverse Effect on Scenic Vista**

A significant impact would occur if the proposed Project has a substantial adverse effect on a scenic vista.

There are no designated scenic vistas within the Project area. The pipeline would be located below ground, with manholes providing the only visible change. The manholes would be located within existing roadway ROW or future developed area and would be flush to the pavement surface. No views would be obstructed.

Environmental Analysis: *No Impact.*

### **I.b Substantially Damage Scenic Resources within a State Scenic Highway**

A significant impact would occur if the proposed Project substantially damages scenic resources within a designated state scenic highway.

There are no California Department of Transportation (Caltrans) designated eligible state scenic highways in the Project vicinity. I-80, which is in the Project area, is not a designated or eligible scenic highway. The Project area is not located near nor will it be visible from a designated state scenic highway.

Environmental Analysis: *No Impact.*

### **I.c Substantially Degrade Existing Visual Character or Quality**

A significant impact would occur if the proposed Project substantially degrades the existing visual character or quality of the site and its surroundings.

Existing uses within the Project area include commercial development, I-80, low-density residential uses, local roadways, and undeveloped land. The undeveloped areas are planned for developed in the near-term, and currently include grassland, wetlands, oak woodland, and other shrubs. Approximately 50 trees would need to be removed onsite between Brace Road and Horseshoe Bar Road. While removal of the trees would alter the existing views onsite, removal of trees would occur within an area planned for development that will further alter visual character of the site. Although tree removal is needed and clearing would occur within the pipeline alignment, the pipeline would be placed underground and the soil returned with the disturbed areas reseeded to prevent erosion. Although a visual change would occur,

the removal of trees would not substantially degrade the visual character or quality of the area. Installation of the pipeline within area roadway ROW would not result in a change to the visual character.

Environmental Analysis: *Less than Significant Impact.*

### **I.d Create New Source of Substantial Light or Glare**

A significant impact would occur if the proposed Project creates a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

The Project does not include lighting fixtures. Construction would occur during daylight hours and no permanent lighting fixtures would be installed for operations.

Environmental Analysis: *No Impact.*

## **II. Agricultural and Forestry Resources**

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				√
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				√
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				√
d) Result in the loss of forest land or conversion of forest land to non-forest use?				√
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				√

## Environmental Setting

The Project alignment is identified in the Town of Loomis General Plan and Zoning Map as General Commercial (CG), Tourist/Destination Commercial (CT), Residential Estate (RE), and Rural Residential (RR). In the City of Rocklin, the alignment is zoned Unclassified (UN) and Residential Single Family 12,500 sf minimum lots (R1-12.5), while the Rocklin General Plan identifies the affected parcels as Low Density Residential (LDR) and Medium Density Residential (MDR). The Project site is not currently used for farming or timber harvest activities and is not located within an area designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, according to the State of California Resources Agency (DOC 2012a). There are no Williamson Act contracts associated with the property, and there are no forestlands on the site (DOC 2012b).

### II.a Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance

A significant impact would occur if the proposed Project converts farmland designated as “prime,” “unique” or “farmland of statewide importance” to non-agricultural uses.

The California Department of Conservation (DOC) applies the United States Department of Agriculture, National Resources Conservation Service (NRCS) soil classifications to identify agricultural lands. These designations are used in planning California’s present and future agricultural land resources. Maps of important farmlands are prepared by the DOC as part of its Farmland Mapping and Monitoring Program (FMMP). The Project area is mapped for the Placer County Area. According to NRCS data, the soils onsite are either not considered prime farmland (Xerorthents, cut and fill areas, and Xerothents, placer areas) or are considered eligible as Farmland of Statewide Importance (Andregg coarse sandy loam, 2 to 9 percent slopes). NRCS rates Andregg coarse sandy loam as 3e irrigated and non-irrigated capability class, which is soil with severe limits, primarily due to erosion. The NRCS non-irrigated soil rating for Xerorthents, cut and fill areas, and Xerothents, placer areas is 8e and 7s, respectively, meaning the soil has severe limitations, restricting agricultural use of the site to pastureland on Class 7 soils, and no agricultural use on Class 8. The California Storie Index measures a soil’s potential cultivation productivity. The Storie Index for Andregg coarse sandy loam is Grade 3 – fair, and is not-applicable for Xerothents soil units. Therefore, agricultural potential onsite is limited. Since the land is not designated as Prime, Unique, or Farmland of Statewide Importance, development of the alignment will not convert designated farmland and will result in no impact. (DOC 2012, NRCS 2015)

Environmental Analysis: *No Impact.*

### II.b Conflict with Existing Agricultural Zoning or Williamson Act Contract

A significant impact would occur if the proposed Project conflicts with existing zoning for agricultural use, or a Williamson Act contract.

The Project site is not within an agricultural use zone. There are no Williamson Act contracts associated with the Project site. No impact is associated with the Project.

Environmental Analysis: *No Impact.*

**II.c Conflict with Existing Zoning for Forest Lands or Timberlands**

A significant impact would be one that converts forest land to non-timber harvest uses; conflict with existing zoning for forest land use; or involve other changes in the existing environment, which could result in conversion of forest land to non-timber harvest use.

No forest or timberland is located on or near the Project site. No impact is associated with the Project.

Environmental Analysis: *No Impact.*

**II.d Loss of Forest Land or Conversion of Forestland To Non-Forest Use**

A significant impact would occur if the proposed Project results in the loss of forest and or conversion of forest and to non-forest use.

No forestland is on or near the Project location. No impact is associated with the Project.

Environmental Analysis: *No Impact.*

**II.e Other Changes to Existing Environment**

A significant impact would occur if the proposed Project involves other changes in the existing environment that due to their location or nature could result in conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use.

The project area does not contain farmland or forestland. Although further development could take place in Loomis, Rocklin and Placer County, implementation of the Project will not cause other land use changes that will convert farmland/forest land to a non-agricultural/non-forestland use as the project is sized for currently planned development and General Plan growth projections. No impact is associated with the Project.

Environmental Analysis: *No Impact.*



### III. Air Quality

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Conflict with or obstruct implementation of the applicable air quality plan?			√	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			√	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			√	
d) Expose sensitive receptors to substantial pollutant concentrations?			√	
e) Create objectionable odors affecting a substantial number of people?			√	

### Environmental Setting

The proposed project site in the Town of Loomis is located in western Placer County, California, where air quality is under the local jurisdiction of the Placer County Air Pollution Control District (PCAPCD or District). The western portion of Placer County is located within the Sacramento Valley Air Basin (SVAB), which also comprises all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba counties, and the eastern portion of Solano County.

The current attainment status of the western portion of Placer County (i.e., within the SVAB) is shown in Table 2.

**Table 2****Attainment Status Designations for the Western Portion of Placer County within the Sacramento Valley Air Basin<sup>1,2</sup>**

<b>Pollutant</b>	<b>National Designation</b>	<b>State Designation</b>
Ozone (O <sub>3</sub> )	Nonattainment/Severe	Nonattainment-Serious
Respirable Particulate Matter (PM <sub>10</sub> )	Attainment	Nonattainment
Fine Particulate Matter (PM <sub>2.5</sub> )	Attainment	Nonattainment for 24-hour; attainment for annual
Visibility Reducing Particles	No Designation	Unclassified
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO <sub>2</sub> )	Attainment	Attainment
Sulfur Dioxide (SO <sub>2</sub> )	Attainment	Attainment
Lead (Pb)	Attainment	Attainment
Hydrogen Sulfide (H <sub>2</sub> S)	No Designation	Unclassified
Sulfates	No Designation	Attainment

Notes: CO =carbon monoxide; NO<sub>2</sub> = nitrogen dioxide; PM<sub>2.5</sub> = fine particulate matter; PM<sub>10</sub> = respirable particulate matter; SO<sub>2</sub> = sulfur dioxide.

<sup>1</sup> PCAPCD. *CEQA Air Quality Handbook*, page 1-12, October 2012.

<sup>2</sup> ARB. *Final Regulation Order, Area Designations for State Ambient Air Quality Standards*, July 1, 2014, <http://www.arb.ca.gov/regact/2013/area13/area13fro.pdf>.

### **III.a Conflict with Applicable Air Quality Plan**

A significant impact would occur if the proposed Project were to conflict with or obstruct implementation of the applicable air quality plan. The applicable air quality plan is the Sacramento Federal Ozone Nonattainment Area Plan.<sup>1</sup> The Sacramento Federal Ozone Nonattainment Area is classified as severe with respect to the National Ambient Air Quality Standards (NAAQS) for ozone. As can be seen in Table 2, the project area is in attainment with the NAAQS for all other criteria air pollutants, and nonattainment for ozone, PM<sub>10</sub>, and 24-hour PM<sub>2.5</sub> California Ambient Air Quality Standards.

Project emissions would not conflict with the Sacramento Ozone Nonattainment Area Plan because they would be less than the District significance thresholds,<sup>2</sup> as shown in Table 3.<sup>3</sup>

Environmental Analysis: *Less than Significant Impact.*

<sup>1</sup> Sacramento Metropolitan Air Quality Management District. *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2013 SIP Revisions)*, April 22, 2013, <http://www.airquality.org/plans/federal/ozone/8hr1997/2013Revision/2013-04-192013SIPRevisionv8.pdf>

<sup>2</sup> PCAPCD. *CEQA Handbook*, page 2-2, 2013.

<sup>3</sup> Emission calculations are contained in Appendix A.

### **III.b Violation of Air Quality Standards or Substantially Contribute to an Existing or Projected Air Quality Violation**

A significant impact would occur if the proposed Project emissions were to violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Project construction emissions would not cause a significant impact because they would not exceed the District significance thresholds, as shown in Table 3. The constructed pipeline will operate without generating emissions.

Environmental Analysis: *Less than Significant Impact.*

### **III.c Cumulatively Considerable Net Increase of a Criteria Pollutant**

Because the project region is nonattainment under applicable federal and state ozone ambient air quality standards,<sup>4</sup> the PCAPCD considers that a cumulatively considerable net increase of NOx or ROG would occur if the Project's operational emissions were to exceed 10 lbs/day of either ozone precursor.<sup>5</sup>

The diversion pipeline would not have operational emissions, and therefore the Project would not cause a cumulatively significant impact.

Environmental Analysis: *Less than Significant Impact.*

### **III.d Expose Sensitive Receptors to Pollutant Concentrations**

A significant impact would occur if the proposed Project were to expose sensitive receptors to substantial pollutant concentrations.

The only exposure to toxic air contaminants<sup>6</sup> (TACs) would be from temporary construction emissions because the Project would have no operational emissions of criteria or toxic air pollutants. The overwhelmingly dominant TAC in the project construction emissions is the diesel particulate matter (DPM) in diesel exhaust. DPM can only have a long-term health impact if there is chronic exposure for many years to develop potential cancer risk or chronic non-cancer health effects. In fact, DPM has no short-term health effects.<sup>7</sup> Because DPM is the surrogate representative of all gaseous and particulate components in diesel exhaust, the gaseous components in the ROG emissions listed in Table 3 do not need to be considered separately. Because the construction diesel exhaust would only be emitted on a temporary basis over approximately two years, it is concluded that sensitive receptors would not be exposed to a significant level of toxic air contaminants.

Environmental Analysis: *Less than Significant Impact.*

---

<sup>4</sup> Sacramento Metropolitan Air Quality Management District. *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2013 SIP Revisions)*, September 26, 2013.

<sup>5</sup> PCAPCD. *CEQA Handbook*, page 2-4, 2013.

<sup>6</sup> California toxic air contaminants (TACs, <http://www.arb.ca.gov/toxics/id/taclist.htm>) and substances for which the California Air Resources Board (ARB) and the Office of Environmental Health Hazard Assessment (OEHHA) have established health values published in their Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values, <http://www.arb.ca.gov/toxics/healthval/healthval.htm>.

<sup>7</sup> ARB's *Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values*, July 3, 2014, <http://www.arb.ca.gov/toxics/healthval/contable.pdf>

**Table 3**Maximum Daily Construction Emissions (lbs/day)<sup>a</sup>

	<b>NOx</b>	<b>CO</b>	<b>ROG</b>	<b>SOx</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>	<b>CO<sub>2</sub></b>	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2e</sub></b>
<b>Onsite</b>										
Mobile Equipment Engine Exhaust	12	6.1	1.08	0.024	0.61	0.59	2472	0.10	0.020	2480
Fugitive Dust from Mobile Equipment	-	-	-	-	4.08	0.73	-	-	-	-
Subtotal Onsite:	12	6.1	1.08	0.024	4.7	1.32	2,472	0.10	0.020	2,480
<b>Offsite</b>										
Worker Travel	0.26	2.0	0.078	0.0054	0.072	0.030	540	0.018	0.0044	542
Fugitive Dust from Worker Travel Offsite					4.8	1.17				
Construction Materials Deliveries	0.67	0.052	0.010	0.0016	0.015	0.0089	167	0.0006	0.0014	167
Fugitive Dust from Materials Delivery Trucks					0.92	0.23				
Subtotal Offsite:	0.93	2.07	0.09	0.0070	5.8	1.43	707	0.019	0.0057	709
<b>Total Daily Construction Emissions (rounded)</b>	<b>12.9</b>	<b>8.2</b>	<b>1.2</b>	<b>0.031</b>	<b>10.5</b>	<b>2.8</b>	<b>3,178</b>	<b>0.12</b>	<b>0.026</b>	<b>3,189</b>
<b>PCAPCD Significance Thresholds:</b>	<b>82</b>	<b>None</b>	<b>82</b>	<b>None</b>	<b>82</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>
<b>CEQA Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

<sup>a</sup> See Appendix A for details.

### III.e Creation of Objectionable Odors

A significant impact would occur if the proposed Project were to create objectionable odors impacting a substantial number of people.

The only potential source of odor would be the exhaust from diesel-fueled construction equipment. Construction of a pipeline results in diesel exhaust emissions from any specific location for only a short time before the equipment moves along the pipeline route, and odors would not be generated by operation of the diversion pipeline. Therefore, the potential odor impact of the Project would be less than significant.

Environmental Analysis: *Less than Significant Impact.*

## IV. Biological Resources

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		√		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?		√		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		√		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		√		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			√	

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		√		

This section of the MND provides an analysis of potential impacts and recommendations to mitigate potentially significant impacts to biological resources on the Project site, including vegetation communities, wildlife, heritage trees, and special-status species. Three technical reports prepared by Foothill Associates were reviewed by HBA biologists to analyze potential biological resources impacts associated with the proposed Project (Appendix B). These technical reports include the following: 1) Biological Resource Assessment prepared on January 21, 2014 that describes the environmental setting, method of data review and analyses, and a summary of sensitive biological resources within the Project site; 2) Delineation of Waters of the U.S. prepared on March 27, 2014; and 3) Arborist Report prepared on January 27, 2014 that provides results of a tree survey, including information on the number, species, size, and conditions of trees within the Project site. HBA biologists conducted a site reconnaissance on March 24, 2015 to confirm the type, location, and extent of these resources within the Project site.

## Environmental Setting

The Project is located primarily in the central section of the Town of Loomis, with a small portion of the southern alignment located in the City of Rocklin. The project site consists of approximately 63 acres of land that supports annual grassland, oak woodland, and mixed riparian forest habitats. Sensitive biological resources identified on the site include the following:

- Marginally suitable habitat for special-status plant species including Adobe navarretia, Brandegee's clarkia, oval-leaved viburnum, El Dorado bedstraw, Layne's ragwort, and Stebbins' morning glory;
- Potential habitat for valley elderberry longhorn beetle;
- Potential nesting habitat and foraging habitat for raptors (including Cooper's hawk, osprey, white-tailed kite, and Swainson's hawk) and other species protected by the MBTA (including purple martin, song sparrow, and grasshopper sparrow);
- Potential western burrowing owl habitat within the annual grassland habitat onsite;
- Potential special-status bat habitat within the oak woodland area;
- Sensitive habitats including oak woodlands;
- A total of 1.13 acres of waters of the U.S., including 0.15-acre of depression seasonal wetlands, 0.53 acre of depression seasonal wetland, 0.01 acre of intermittent drainage, 0.44 acre of perennial drainage, and 0.01 acre of pond; and
- A total of 1,214 trees, comprised of 679 interior live oaks (*Quercus wislizenii*), 526 valley oaks (*Quercus lobata*), and 9 blue oaks (*Quercus douglasii*), were inventoried on the site.

For an in depth discussion of the existing habitats onsite and a discussion of the regulatory framework that was evaluated to determine potential impacts to biological resources, please refer to the Biological Resource Assessment (Foothill Associates 2014) attached as Appendix B.

#### IV.a Substantial Adverse Effect on Special-Status Species and their Habitat

A significant impact would occur if the proposed Project has a substantial adverse effect on species identified as candidate, sensitive, or special status species and suitable habitat known to support such species.

The Preferred Project Alignment and surrounding Project corridor, is located within the United States Geological Survey (USGS) Rocklin 7.5-minute topographic quadrangle. A records search of the California Department of Fish and Game Natural Diversity Database (CNDDB 2015) for special-status species occurrences within the Rocklin 7.5 min Quad map and eight (8) surrounding 7.5 min Quads was run on June 2, 2015. Additionally a species list was obtained from the U.S. Fish and Wildlife Service for the Quads noted above on May 28, 2015. Table 4 below summarizes the database searches noted above for species that may occur in the project area, provides a general habitat description and determines if suitable habitat is present onsite.

Table 4				
Regional Species and Habitats of Concern				
Common Name Scientific Name	Status	General Habitat Description	Potential for Occurrence	Rationale
<b>Fish</b>				
Central Valley fall/late fall-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	CSC	Sacramento and San Joaquin Rivers and their tributaries.	High	Secret Ravine provides suitable habitat for this species.
Central Valley winter-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	FE, CE	Spawn in northern Sacramento River (Redding to Red Bluff) and its tributaries. Juveniles may journey up to 5 miles upstream in other tributaries.	None	Winter-run Chinook salmon are not known to spawn in Secret Ravine and the site is located over 25 miles from the Sacramento River.
Central Valley spring-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	FT, CT	Spawn in Mill, Deer, and Butte Creeks and in Yuba River and Feather River watersheds. Juveniles may journey up to 5 miles upstream in Sacramento River tributaries.	None	Spring-run Chinook salmon are not known to spawn in Secret Ravine and the site is located over 25 miles from the Sacramento River.
Central Valley steelhead <i>Oncorhynchus mykiss</i>	FT	Rivers and streams tributary to the Sacramento-San Joaquin Rivers and Delta ecosystems.	High	Secret Ravine provides suitable habitat for this species.

**Table 4****Regional Species and Habitats of Concern**

<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Delta smelt <i>Hypomesus transpacificus</i>	FT, CE	Shallow fresh or brackish water tributary to the Delta ecosystem; spawns in freshwater sloughs and channel edgewaters.	None	This species does not typically occur upstream from the Delta area.
<b>Amphibians</b>				
California red-legged frog <i>Rana draytonii</i>	FT, CSC	Requires a permanent water source and is typically found along quiet slow moving streams, ponds, or marsh communities with emergent vegetation.	None	There is potential dispersal habitat for this species on site, but there is no breeding habitat and there are no known occurrences within 5 miles of the site.
California tiger salamander <i>Ambystoma californiense</i>	FE, CSC	Ponded water required for breeding. Adults spend summer in small mammal burrows.	None	The site is outside the known range for this species and there is only marginal breeding habitat on the site.
Giant garter snake <i>Thamnophis gigas</i>	FT, CT	Agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands.	None	There is no suitable habitat on the site for this species.
Western pond turtle <i>Clemmys marmorata</i>	CSC	Agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands.	Low	Secret Ravine provides areas of suitable habitat.
Western spadefoot <i>Spea hammondi</i>	CSC	Open grasslands and woodlands. Requires vernal pools or seasonal wetlands for breeding.	Low	The seasonal wetlands and margins of Secret Ravine may provide suitable breeding habitat.
<b>Birds</b>				



**Table 4****Regional Species and Habitats of Concern**

<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Bald eagle <i>Haliaeetus leucocephalus</i>	FT, CE	Nesting restricted to the mountainous habitats near permanent water sources in the northernmost counties of California, the Central Coast Region, and on Santa Catalina Island. Winters throughout most of California at lakes, reservoirs, river systems, and coastal wetlands.	None	There is no suitable habitat on the site for this species.
Bank swallow <i>Riparia riparia</i>	CT	Nests in riverbanks and forages over riparian areas and adjacent uplands.	None	There is no suitable nesting habitat on the site for this species.
California black rail <i>Laterallus jamaicensis coturniculus</i>	CT	Nests in higher areas of coastal salt and brackish or freshwater marshes dominated by rushes, grasses, and sedges.	None	There is no suitable habitat on the site for this species.
Cooper's hawk <i>Accipiter cooperii</i>	CSC (nesting)	Nests in riparian corridors. Forages in woodlands and riparian areas.	High	Riparian woodland along Secret Ravine provides suitable habitat for this species.
Grasshopper sparrow <i>Ammodramus savannarum</i>	CSC (nesting)	Found in short to middle-height, moderately open grasslands with scattered shrubs.	Low	Although the site supports habitat, no sightings have occurred within 5 miles.
Osprey <i>Pandion haliaetus</i>	CSC (nesting)	Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	High	Site supports nesting habitat and 1 occurrence within 5 miles.
Purple martin <i>Progne subis</i>	CSC (nesting)	Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	High	Snag nesting habitat probable on site and 1 occurrence within 5 miles.

**Table 4****Regional Species and Habitats of Concern**

<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Song sparrow ("Modesto" population)  <i>Melospiza melodia</i>	CSC	Requires low, dense vegetation for protective cover, usually near water, in emergent vegetation, or in other moist areas.	Low	Although the site supports habitat, no sightings have occurred within 5 miles.
Swainson's hawk  <i>Buteo swainsoni</i>	CT	Nests in isolated trees or riparian woodlands adjacent to suitable foraging habitat (agricultural fields, grasslands, etc.)	Low	Although the site supports marginal habitat, no sightings have occurred within 5 miles.
Tricolored blackbird  <i>Agelaius tricolor</i>		Nests in dense blackberry, cattail, tules, willow, or wild rose within emergent wetlands throughout the Central Valley and foothills surrounding the valley.	None	There is no suitable nesting habitat on the site for this species.
Western burrowing owl  <i>Athene cunicularia hypugaea</i>	CSC (burrow sites and some wintering sites)	Nests in burrows in the ground, often in old ground squirrel burrows or badger, within open dry grassland and desert habitat.	Low	Although the site supports marginal habitat, no sightings have occurred within 5 miles.
White-tailed kite  <i>Elanus leucurus</i>	CFP	Nests in isolated trees or woodland areas with suitable open foraging habitat.	High	Site supports suitable habitat and there is 1 occurrence within 5 miles of the site.
Other Raptors (Hawks, Owls and Vultures)	MBTA and §3503.5 Department of Fish and Game Code	Nests in a variety of communities including cismontane woodland, mixed coniferous forest, chaparral, montane meadow, riparian, and urban communities.	Present	Present
<b>Mammals</b>				
Pallid bat  <i>Antrozous pallidus</i>	CSC	Common roost sites are rock crevices, old buildings, bridges, caves, mines, and hollow trees.	Low	There is potential suitable nesting habitat but no known occurrences within 5 miles of the site.

**Table 4****Regional Species and Habitats of Concern**

<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Townsend's big-eared bat  <i>Corynorhinus townsendii</i>	CT	Requires caves, mines, tunnels, buildings or other human-made structures for roosting.	None	There is no suitable roosting habitat for this species on the site.
<b>Invertebrates</b>				
California linderiella  <i>Linderiella occidentalis</i>		Vernal pools, swales, and ephemeral freshwater habitat.	None	There is no suitable habitat on the site for this species.
Conservancy fairy shrimp  <i>Branchinecta lynchi</i>	FE	Vernal pools, swales, and ephemeral freshwater habitat.	None	There is no suitable habitat on the site for this species.
Valley elderberry longhorn beetle  <i>Desmocerus californicus dimorphus</i>	FT	Blue elderberry shrubs usually associated with riparian areas.	High	27 elderberry shrubs have been located on the site, with some showing evidence of possible exit holes and there are 5 occurrences within 5 miles.
Vernal pool fairy shrimp  <i>Branchinecta lynchi</i>	FT	Vernal pools, swales, and ephemeral freshwater habitat.	None	There is no suitable habitat on the site for this species.
Vernal pool tadpole shrimp  <i>Lepidurus packardi</i>	FE	Vernal pools, swales, and ephemeral freshwater habitat.	None	There is no suitable habitat on the site for this species.
<b>Plants and Fungi</b>				
Adobe navarretia  <i>Navarretia nigelliformis</i> ssp. <i>nigelliformis</i>	4.2	Found in clay, sometimes serpentine mesic soil, valley and foothill grassland habitats. 100-1000 m. Blooms April-June.	Low	Marginally suitable habitat present. Additional focused survey recommended to determine presence/absence of this species.

**Table 4****Regional Species and Habitats of Concern**

<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Ahart's dwarf rush <i>Juncus leiospermus</i> <i>var. ahartii</i>	1B.1	Vernal pools, valley and foothill grassland. Restricted to the edges of vernal pools. 30-229 m. Blooms March-May.	None	There is no suitable habitat on the site for this species. Furthermore, species not detected during focused survey conducted by HBA during late March 2015.
Big-scale balsamroot <i>Balsamorhiza</i> <i>macrolepis var.</i> <i>macrolepis</i>	1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 90-1555 m. Blooms March-June.	None	Species not detected during focused survey conducted by HBA during late March 2015.
Bisbee Peak rush-rose <i>Helianthemum</i> <i>suffrutescens</i>	3.2	Found in chaparral habitat, often on serpentine, gabbroic, or Ione formation soils; in openings in chaparral. 45-840 m. Blooms April-August.	None	There is no suitable chaparral habitat on the site for this species. Species not detected during focused survey conducted by HBA during late March 2015.
Boggs Lake hedge-hyssop <i>Gratiola</i> <i>heterosepala</i>	CE, 1B.2	Shallow ponds and margins of vernal pools. 10-2375 m. Blooms April-August.	None	There is no suitable habitat on the site for this species.
Brandege's clarkia <i>Clarkia biloba ssp.</i> <i>brandegeae</i>	4.2	Chaparral, cismontane woodland, lower montane coniferous forest. Often in roadcuts. 75-915 m. Blooms May-July.	Low	Marginally suitable habitat present. Additional focused survey recommended to determine presence/absence of this species.
Brewer's calandrinia <i>Calandrina breweri</i>	4.2	Chaparral, northern coastal scrub, coastal sage scrub on sandy or loamy soils. Disturbed sites and burns. 10-1220 m. Blooms March-June.	None	There is no suitable chaparral or coastal scrub habitat on the site for this species. Furthermore, species not detected during focused survey conducted by HBA during late March 2015.

**Table 4****Regional Species and Habitats of Concern**

<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Butte County fritillary  <i>Fritillaria eastwoodiae</i>	3.2	Found in openings in yellow pine forest, foothill woodland, and chaparral. Usually on dry slopes but also found in wet places; soils can be serpentine, red clay, or sandy loam. 50-1500 m. Blooms March-June.	None	Species not detected during focused survey conducted by HBA during late March 2015.
Dubious pea  <i>Lathyrus sulphureus var. argillaceus</i>	3	Found in foothill woodland, lodgepole forest, red fir forest, yellow pine forest. 150-930 m. Blooms April-May.	None	No suitable habitat. Site is located below typical elevation range for this species. Species not detected during focused survey conducted in late March 2015.
Dwarf downingia  <i>Downingia pusilla</i>	2B.2	Found on the edges of vernal pools in alkaline and non-alkaline soils. 1-455 m. Blooms March-May.	None	There is no suitable habitat on the site for this species. Furthermore, species not detected during focused survey conducted by HBA during late March 2015.
El Dorado bedstraw  <i>Galium californicum ssp. sierrae</i>	FE, CR, 1B.2	Cismontane woodland, chaparral, lower montane coniferous forest. More often in pine-oak woodland than in chaparral; restricted to gabbroic soils. 100-585 m. Blooms May-June.	Low	Marginally suitable habitat present. Additional focused survey recommended to determine presence/absence of this species.
El Dorado County mule ears  <i>Wyethia reticulata</i>	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. Stony red clay and gabbroic soils; often in openings in chaparral. 185-630 m. Blooms April-August.	None	Oak woodlands and annual grasslands on the site do not provide suitable habitat for this species.
Hispid bird's-beak <i>Chloropyron molle ssp. hispidum</i>	1B.1	Found in moist alkaline meadows and playas and coastal salt marshes. 1-155 m. Blooms June-September.	None	There is no suitable alkaline wetland or coastal salt marsh habitat on the site for this species.

**Table 4****Regional Species and Habitats of Concern**

<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Humboldt lily <i>Lilium humboldtii</i> <i>ssp. humboldtii</i>	4.2	Found in chaparral, yellow pine forest. 90-1280 m. Blooms May-July.	None	There is no suitable habitat on the site for this species.
Jepson's onion <i>Allium jepsonii</i>	1B.2	Found in woodlands of broadleaved (especially oak) and coniferous trees between 300-1320 m. Blooms April-August.	None	Site is below typical elevation range for this species.
Jepson's woolly sunflower <i>Eriophyllum jepsonii</i>	4.3	Chaparral, foothill woodland, northern coastal scrub, coastal sage scrub in serpentine soil. 200-1025 m. Blooms April-June.	None	There are no suitable shrub-dominated habitats or serpentine soils on the site.
Layne's ragwort <i>Packera layneae</i>	FT, CR, 1B.2	Dry pine woodlands, oak woodlands, or chaparral areas associated with serpentine or gabbroic soils. 200-1085 m. Blooms April-August.	Low	Marginally suitable habitat present. Additional focused survey recommended to determine presence/absence of this species.
Legenere <i>Legenere limosa</i>	1B.1	Vernal pools. 1-800 m. Blooms April-June.	None	There is no suitable vernal pool habitat on the site for this species.
Oval-leaved viburnum <i>Viburnum ellipticum</i>	2B.3	Chaparral, cismontane woodland, lower montane coniferous forest. 215-1400 m. Blooms May-June.	Low	Marginally suitable habitat present. Additional focused survey recommended to determine presence/absence of this species.
Pincushion navarretia <i>Navarretia myersii</i> <i>ssp. Myersii</i>	1B.1	Found on the margins of vernal pools. 20-330 m. Blooms April-May.	None	There is no suitable vernal pool habitat on the site for this species.
Pine Hill ceanothus <i>Ceanothus roderickii</i>	FE, CR, 1B.2	Chaparral, foothill woodland on serpentine soil between 250 to 610 meters. Blooms April-June.	None	This perennial shrub was not observed during the March 2015 survey and there is no suitable habitat on the site for this species.



**Table 4****Regional Species and Habitats of Concern**

<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Pine Hill flannelbush  <i>Fremontodendron decumbens</i>	FE, CR, 1B.2	Chaparral, cismontane woodland/gabbroic or serpentinite, rocky. 425- 760 m. Blooms April- June.	None	There is no suitable habitat containing serpentine soils on the site for this species and the site is situated below the typical elevation range for this species.
Red Bluff dwarf rush  <i>Juncus leiospermus var. leiospermus</i>	1B.1	Occurs in vernal mesic chaparral, cismontane woodland, meadows, seeps, valley and foothill grassland, and vernal pools from 35-1250 m elevation. Blooms March- June.	None	The nearest recorded occurrence is considered erroneous and the site is far outside the known range of the species (CDFW 2015). Furthermore, species not detected during focused survey conducted by HBA during late March 2015.
Red Hills soaproot  <i>Chlorogalum grandiflorum</i>	1B.2	Open hillsides in chaparral communities. Usually associated with gabbroic or serpentine soils. 245-1240 m. Blooms May-June.	None	There is no suitable chaparral habitat or serpentine/gabbroic soils on the site for this species.
Sacramento Orcutt grass  <i>Orcuttia viscida</i>	FE, CE, 1B.1	Found in deep vernal pools. Populations known from eastern Sacramento County. 30-100 m. Blooms April-July (September).	None	There is no suitable vernal pool habitat on the site for this species.
Sanborn's onion  <i>Allium sanbornii var. sanbornii</i>	4.2	Found in chaparral, foothill woodland and yellow pine forest associated with serpentine soils. 260- 1510 m. Blooms May- September.	None	There are no serpentine soils on the site for this species.
Sanford's arrowhead  <i>Sagittaria sanfordii</i>	1B.2	Shallow freshwater marshes and pond habitats. 0-650. Blooms May-October (November).	None	Margins of Secret Ravine provide potential habitat. However, this species was not detected during focused surveys conducted in November 2013.

**Table 4****Regional Species and Habitats of Concern**

<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description</b>	<b>Potential for Occurrence</b>	<b>Rationale</b>
Stebbins' morning glory  <i>Calystegia stebbinsii</i>	FE, CE, 1B.1	Found in openings within chaparral, foothill and woodland habitats. 185-1090 m. Blooms April-July.	Low	Marginally suitable habitat present. Additional focused survey recommended to determine presence/absence of this species.
Stinkbells  <i>Fritillaria agrestis</i>	4.2	Found on wetland-riparian serpentine soils on chaparral, valley grassland, foothill woodland habitats. 10-1555 m. Blooms March-June.	None	There is no suitable habitat on the site for this species. Furthermore, species not detected during focused survey conducted by HBA during late March 2015.
Streambank spring beauty  <i>Claytonia parviflora ssp. grandiflora</i>	4.2	Rocky cismontane woodlands. 250-1200 m. Blooms February to May.	None	There is no suitable habitat on the site for this species. Furthermore, species not detected during focused survey conducted by HBA during late March 2015.

Source: Foothill Associates 2014, HBA 2015

Federally Listed Species: FE = federal endangered FT = federal threatened FC = candidate PT = proposed threatened FPD = proposed for delisting FD = delisted

California State Listed Species: CE = California state endangered CT = California state threatened CR = California state rare CSC = California Species of Special Concern CFP = California Fully Protected

CNPS\* Rank Categories: 1A = plants presumed extinct in California 1B = plants rare, threatened, or endangered in California and elsewhere 2 = plants rare, threatened, or endangered in California, but common elsewhere 3 = plants about which we need more information 4 = plants of limited distribution

Other Special-Status Listing: SLC = species of local or regional concern or conservation significance

**Special Status Wildlife**

Based on the information provided in Table 4 above, the project area contains suitable habitat for Central Valley fall/late fall run Chinook salmon, Central Valley steelhead, several special-status bat species, western spadefoot, Cooper's hawk, osprey, purple martin, white tailed kite and western burrowing owl and other migratory birds species. Suitable habitat for valley elderberry longhorn beetle is also present onsite. A discussion of impacts to the habitat for the above species is provided below.

*Central Valley fall/late fall-run Chinook salmon and Central Valley steelhead* – Secret Ravine Creek provides suitable habitat for these species. The proposed alignment will not directly impact Secret Ravine Creek, as it is located over 150 feet to the west of the creek. Therefore, no direct impacts to potential habitat for these species are expected and no further mitigation for these species is required. Preparation and implementation of a storm water pollution prevention plan (SWPPP) will mitigate any indirect water

quality impacts from construction runoff from the proposed project as noted in Section 2.6.4 (Stormwater Pollution Prevention Plan).

*Western spadefoot* – Suitable habitat for this species is located within seasonal wetlands within the project area. The proposed alignment impacts 0.075 acre (3,292 sf). Impacts to these wetland areas would have a potentially significant impact on suitable habitat for this species. Section IV.c (Substantial Adverse Effects on Wetlands) below outlines avoidance and mitigation measures for potential impacts to wetlands, which will mitigate potential impacts to this species.

*Raptors and migratory bird species* - Several species of raptors and other protected birds may forage and nest on the site including Cooper's hawk, osprey, white-tailed kite, Swainson's hawk, purple martin, song sparrow, and grasshopper sparrow. Active raptor nests are protected by the California Fish and Game code Section 3503.5 and the Migratory Bird Treat Act of 1918 (MTBA). If construction is expected to occur during the nesting season (typically February 1 through August 31), impacts to these species may result from disturbance to nesting activity. Mitigation Measure BIO-1 should be implemented to avoid impacting nesting birds.

*Western burrowing owl* - Although burrowing owls were not observed during the site visits performed for the biological assessment and reconnaissance efforts for the project site, the site contains annual grassland habitat that is suitable foraging and nesting habitat for burrowing owl. Although no suitable burrows were observed onsite, the grassland habitat is still considered potential foraging habitat for this species and the opportunity exists for western burrowing owls to occupy the site prior to project implementation. As there have not been any western burrowing owl present within the project area and no known occurrences are within five miles of the project area, impacts to potentially suitable habitat are considered less than significant. Mitigation Measure BIO-2 should be implemented to avoid potential impacts to burrowing owls that may occupy the site.

*Valley elderberry longhorn beetle* - There are five records in the CNNDDB for this species within five miles of the site, including one downstream within the Secret Ravine watershed (CDFW 2015). Twenty-seven (27) elderberry shrubs were documented on the site in 2007 that had stems large enough to provide suitable VELB habitat (Appendix B). Thirteen of the shrubs on the southern half of the site showed evidence of beetle exit holes, although no beetles have been observed on the site (Foothill Associates 2014). Based on the presence of numerous elderberries with evidence of past beetle occupation and suitable elderberry habitat, the valley elderberry longhorn beetle has a high potential to occur on the site. Construction of the Project would not result in the direct removal of individual elderberry shrubs that provide potentially suitable habitat for VELB, but construction-related disturbance will occur within the USFWS-designated 100-foot protection buffer of 18 shrubs. Implementation of Mitigation Measure BIO-3 is required to reduce impacts to VELB to a less than significant level.

*Pallid bat and other special-status bat species* - Several special-status bat species, which are State Species of Concern, have the potential to roost on the project site. Pallid bats roost in rock crevices and caves and occasionally hollow trees and buildings. Long-eared myotis (*Myotis evotis*) live in thinly forested areas and occasionally caves. Hoary bats (*Lasiurus cinereus*) live in wooded areas and hang in trees. Western red bat (*Lasiurus blossevillii*) roosts primarily in trees, usually at edges of streams, fields, or urban areas. There are no CNDDDB records for any of these special-status bat species within five miles of the project site (CDFW 2015) and no bat species were observed onsite during the site assessments conducted by biologist from Foothill Associates (2013) or HBA (2015). However, the oak woodlands provide potential roosting habitat; therefore, there is potential for special-status bat species to be impacted by tree removal and other construction activities. Mitigation measure BIO-6 in Section IV.d (Substantial Interference with Movement of Species or Use of Nursery Sites) outlines avoidance and mitigation measures for potential impacts special-status bat species and roosting sites.

## Special Status Plants

Plant species that are listed as endangered or threatened under the Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA), or plant species that are proposed or candidates for listing as endangered or threatened, are protected by law and are considered special-status species. Plant species, which may not be listed as endangered, threatened, candidate, or proposed species under FESA or CESA, may be considered rare if assigned a rarity code by the California Native Plant Society (CNPS). The CNPS lists five categories of rarity (Lists 1A, 1B, 2, 3, and 4). Under CEQA, impact analyses are mandatory for List 1 and 2 species, but not for all List 3 and 4 species as some do not meet the definitions of the Federal Native Plant Protection Act or the California Endangered Species Act; however, List 3 and 4 impacts to these species are generally considered in most CEQA analyses and are recommended by the CNPS (2001). Based on the data compilation and background research, 30 special-status plant species were recorded to occur, or have the potential to occur, in the Project site vicinity (Table 4).

Following review of site survey data from November 2013 and March 2015 and an evaluation of the suitability of habitats, it was determined that the project area contains marginally suitable habitat for the following six (6) species: Adobe navarretia (*Navarretia nigelliformis* ssp. *nigelliformis*), Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeae*), oval-leaved viburnum (*Viburnum ellipticum*), El Dorado bedstraw (*Galium californicum* ssp. *sierrae*), Layne's ragwort (*Packera layneae*), and Stebbins' morning glory (*Calystegia stebbinsi*). Due to disturbed site conditions, prevalence of non-native annual grasses and forbs, and limited suitability of the habitats onsite for these species (e.g., soil type, vegetation structure, and commonly associated species), there is a low potential that these species are present on the Project site. To avoid impacts to special-status plants, Mitigation BIO-4 will be implemented.

## Required Mitigation:

### BIO-1. Active Raptor and Migratory Bird Nest Site and Wildlife Nursery Site Protection Program

SPMUD shall protect existing active bird nests to be impacted by Project construction activities. SPMUD shall develop an Active Raptor and Migratory Bird Site Protection Program (Program) to meet these needs. The Program shall include surveys, consultation, and protective actions. Pre-construction surveys, conducted during the nesting/breeding season (February 1-August 31) no longer than seven (7) days prior to initial Project construction (e.g., excavation, grading and tree removal), shall be conducted to identify any active raptor or migratory bird nest sites and wildlife nursery sites within the project area that may not have occurred previously. During initial construction activities (tree removal and excavation for the construction), a qualified biological monitor shall be present to evaluate whether any raptors or migratory birds are occupying trees within the project area. If active raptor nests are found on or within 500 feet of the project impact area, construction activities should not occur within 500 feet of the nests, or up to 1/4-mile of the nest if it is an active Swainson's hawk nest, until the young have fledged or until the biologist has determined that the nest is no longer active. The biological monitor shall have the authority to stop construction near occupied trees or nursery sites if it appears to be having a negative impact on nursery sites, nesting raptors, migratory birds or their young observed within the construction zone. If construction must be stopped, the monitor shall consult with CDFW or USFWS (if applicable) staff within 24 hours to determine appropriate actions to restart construction while reducing impacts to identified nursery sites, raptors or migratory bird nests.

### BIO-2. Western Burrowing Owl

A qualified biologist shall perform a burrowing owl survey of the project impact area no more than 30 days prior to the commencement of construction. Burrowing owls can be present during all times of the

year in California, so this survey is required regardless of the time construction activities occur. If active owl burrows are located during the pre-construction survey, it is recommended that a 250-foot buffer zone be established around each burrow with an active nest until the young have fledged and are able to exit the burrow. If occupied burrows are found with no nesting occurring, if active burrows are found after the young have fledged, or if development commences after the breeding season (typically February-August), passive relocation of the birds shall be performed. Passive relocation involves installing a one-way door at the burrow entrance, which encourages the owls to move from the occupied burrow. CDFW shall be consulted for current guidelines and methods for passive relocation of any owls found on the site. If burrowing owls are determined to be occupying the site, mitigation for project impacts that result in relocation of burrowing owls and loss of burrows and/or foraging habitat will be required. CDFW recommends 6.5 acres of foraging habitat be preserved for each active burrow that would be impacted by project activities. The City of Loomis, in coordination with CDFW, would be responsible for prescribing appropriate mitigation for any project-related impacts to burrowing owls. These mitigation measures would only apply in the event that burrowing owls were encountered during the pre-construction survey.

### **BIO-3. Valley Elderberry Longhorn Beetle**

While processing a CWA Section 404 permit for project-related impacts to federally jurisdictional wetlands (refer to Section IV.c, Substantial Adverse Effect on Wetlands), USACE will consult with the USFWS regarding potential effects to federally listed species pursuant to Section 7 of the Federal Endangered Species Act. This consultation may result in the issuance of a Biological Opinion by USFWS to authorize incidental take of valley elderberry longhorn beetle (VELB). The Biological Opinion will contain required impact minimization and mitigation measures that must be implemented to protect and/or mitigation habitat for VELB prior to project initiation.

Complete avoidance (i.e., no adverse effects) may be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. The proposed Project will avoid direct impacts (removal) to all of the 18 elderberry shrubs within the Project corridor; however, conducting construction related activities within a 100-foot protective buffer zone is still considered to be a potentially significant impact according to the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (Conservation Guidelines), issued by the USFWS on July 9, 1999. USFWS must be consulted before any disturbance occurs within the 100-foot buffer area. In addition, USFWS must be provided with a map identifying the avoidance area and written details describing avoidance measures.

The following mitigation measures, in addition to any additional compensatory and/or protective measures specified in the USFWS Biological Opinion, will be implemented:

4. In accordance with the Conservation Guidelines (1999), updated surveys will be conducted by a qualified biologist within 100 feet of the Project site for the presence of the VELB and suitable elderberry host plants that have one or more stems measuring 1.0 inch or greater in diameter at ground level.
5. Elderberry shrubs that are not within the Preferred Project Alignment. A minimum of a 20-foot buffer from the dripline of each retained shrub shall be established to ensure that beetles that may be utilizing the shrubs are not adversely affected. All buffers shall be marked with brightly colored flags or fencing and shall be maintained until project construction is complete.
6. At the discretion of the USFWS, if any elderberry shrubs are removed as a result of project construction, they will either be transplanted to another suitable location onsite or to a USFWS-approved valley elderberry longhorn beetle conservation bank in accordance with procedures

outline in the Conservation Guidelines (1999). The restored elderberry beetle habitat will be monitored and maintained in accordance with the Conservation Guidelines (1999).

#### **BIO-4. Special-Status Plant Species**

To confirm the presence or absence of rare plants on the project site, a qualified biologist shall conduct a focused survey according to CDFW guidelines, for these species prior to the onset of construction activities. The surveys shall be conducted at the proper time of year when the plants are both evident and identifiable (approximately June). A qualified biologist is an individual who possesses the following qualifications: 1) experience conducting floristic field surveys; 2) knowledge of plant taxonomy and plant community ecology; 3) familiarity with the plants of the area, including rare, threatened, and endangered species; 4) familiarity with the appropriate state and federal statutes related to plants and plant collecting; and 5) experience with analyzing impacts of development on native plant species communities.

If none of the special-status plants are found on the site, no further mitigation would be required. If any of these plant species are located, the survey will determine the number of individuals present and the limits of the area occupied by the population, and one of the following additional mitigation measures will be implemented:

- a. avoidance and permanent protection of the on-site population;
- b. permanent preservation of an existing, off-site population of the species in the region at a 2:1 acreage ratio and a similar population size (1:1 ratio); or
- c. transplant the individuals to permanently preserved habitat off-site at a 2:1 acreage ratio (preferably adjacent to the site or in close proximity).

Each additional mitigation option above (a – c) shall include the preparation of a Preservation Plan (under a or b) or a Mitigation Plan (under c) by a qualified biologist/botanist, to be submitted to and approved by the City, as well as CDFW and/or USFWS. The Plan shall include the location and extent of the preserved or transplanted individuals, measures to ensure protection of the population during and following project implementation (in perpetuity), including a mechanism to ensure permanent preservation of the population from development such as a conservation easement or agreement with the landholder. The Plan shall also include methods to transplant the individuals (if applicable), measures to maintain the population (i.e. weed control), and methods to monitor the population for a minimum of five years following preservation or transplantation, including performance criteria and contingency measures in case of failure to meet performance criteria.

Environmental Analysis: *Less Than Significant with Mitigation Incorporated.*

#### **IV.b Substantial Adverse Effect on Sensitive Natural Community**

A significant impact would occur if the proposed Project has a substantial adverse effect on any riparian or other sensitive natural community. Sensitive vegetation communities are natural communities and habitats that are either unique, of relatively limited distribution in the region, or of particularly high wildlife value. However, these communities may or may not necessarily contain special-status species. Sensitive natural communities are usually identified in local or regional plans, policies or regulations. The California Department of Fish and Wildlife (CDFW) ranks sensitive communities as ‘threatened’ or ‘very threatened’ and keeps records of their occurrences in its Natural Diversity Database. Sensitive plant communities are also identified by CDFW on their List of California Natural Communities. In addition, streams, lakes, and riparian vegetation that are subject to jurisdiction by the CDFW under Sections 1600-1616 of the California Fish and Game Code are also regulated as sensitive communities. Impacts to



sensitive natural communities identified in local or regional plans, policies, regulations or by the CDFW or the USFWS must be considered and evaluated under the California Environmental Quality Act (California Code of Regulations: Title 14, Div. 6, Chap. 3, Appendix G). According to a search of CNDDDB, five (5) sensitive natural communities have been documented from the Rocklin USGS quadrangle and/or the surrounding eight quadrangles: alkali meadow, alkali seep, Northern hardpan vernal pool, Northern volcanic mudflow vernal pool, and valley needle grassland.

In September 2004, Senate Bill 1334 was passed and added to the State Public Resources Code as Statute 21083.4, requiring all California counties and cities to determine in their CEQA documents whether a Project in its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment. The California Fish and Game Code (Section 1361) defines oak woodland habitat as “an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover.” A range of mitigation alternatives must be implemented if a local municipality identifies potentially significant impacts related to oak woodland conversion. Approximately 7.21 acres of oak woodland habitat within the Project corridor will be indirectly impacted by installation of the diversion line and 0.29 acre would be directly impacted, resulting in the removal of seven (7) oak trees.

#### **Required Mitigation:**

Implementation of Mitigation Measure BIO-7 (Preservation and Mitigation of Protected Trees) will be required to reduce this impact to a less than significant level (See impact IV.e).

Environmental Analysis: *Less Than Significant with Mitigation Incorporated.*

#### **IV.c Substantial Adverse Effect on Wetlands**

A significant impact would occur if the proposed Project has a substantial adverse effect on federally protected wetlands. The U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under Section 404 of the Clean Water Act (CWA) (33 USC 1344). Waters of the United States are defined in Title 33 CFR Part 328.3(a) and include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. Section 404 of the CWA requires a federal license or permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities). Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification from the state in which the discharge originates or would originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the affected waters at the point where the discharge originates or would originate. The responsibility for the protection of water quality in California rests with the Regional Water Quality Control Board (RWQCB).

Based on the Delineation of Waters of the United States completed by Foothill Associates and verified by the USACE, the 63 acre surveyed area contains 1.13 acres of waters of the U.S., including 0.15-acre of depressional seasonal wetlands, 0.53 acre of riverine seasonal wetland, 0.01 acre of intermittent drainage, 0.44 acre of perennial drainage (Secret Ravine), and 0.01 acre of pond. The site plan for the proposed project incorporates protection of Secret Ravine, and avoids a majority of wetland and water features within the property. However, direct impacts to 0.075 acre (3,292 sf) of federally jurisdictional seasonal wetlands and a groundwater seep may occur within the Project corridor as a result of trenching and

backfilling activities during installation of the diversion pipeline, as well as from equipment access, staging, and laydown in this area. Impacts to federally regulated wetlands will be mitigated to a less than significant level through implementation of Mitigation Measure BIO-5.

### **Required Mitigation:**

#### **BIO-5. Section 404/401 Wetlands and Waters**

Any alterations of, or discharges into, waters of the United States, including Section 404 wetlands must be in conformance with the Sections 404 and 401 of the CWA via certification and permitting prior to any grading or construction that may impact jurisdictional area(s), as applicable. If avoidance of federally protected wetlands is not feasible, securing 404 and 401 permits under the Clean Water Act and compliance with the federal and state “no net loss of wetlands” policy will be required in accordance with USACE and Regional Water Quality Control Board (RWQCB) regulations. Prior to initiation of ground disturbance activities, the applicant shall consult with the USACE to identify potential impacts to the wetland features identified in the verified jurisdictional delineation. If the USACE determines that jurisdictional waters will be impacted by the project, the appropriate Clean Water Act (CWA) Section 404 permit shall be acquired by the applicant for the construction of the proposed project. In addition, RWQCB certification is required pursuant to Section 401 of the CWA to obtain a 404 permit.

Preparation of a wetlands mitigation plan would be required to be submitted with the agency permit applications, including an agreed-upon replacement ratio of wetlands with the USACE and RWQCB. The mitigation plan shall address protection of wetland features retained onsite, quantify the total jurisdictional acreage lost, describe creation/replacement ratio for acres filled, annual success criteria, potential mitigation-sites, monitoring and maintenance requirements, and contingency measures if the success criteria are not met. The amount of compensatory wetland acreage shall be based on the functions and values of impacted wetlands, but will include a minimum of a 1:1 ration of created to filled wetlands. The plan shall be prepared by a qualified biologist pursuant to, and through consultation with, the USACE and RWQCB. The mitigation plan may include funding mechanisms for future maintenance of the wetland and riparian habitat, which may include an endowment or other funding from the project applicant. Impact minimization measures associated with permits may include implementation of best management practices (i.e., erosion and sediment control measures) and seasonal work restrictions, as appropriate. Impacts to jurisdictional features shall not occur until the permits are received from the appropriate regulatory agencies, or correspondence is received from the agencies indicating that a permit is not required.

As an alternative to wetland creation, equivalent mitigation credits may be purchased at a mitigation bank to offset impacts to federally jurisdictional riverine seasonal wetlands. A mitigation plan would need to be prepared that provides detailed information about the bank and how the purchase of credits will result in no net loss of wetlands. Purchase of mitigation credits shall be subject to approval and verification by USACE, RWQCB, and the Town prior to the initiation of ground disturbing activities.

Environmental Analysis: *Less Than Significant with Mitigation Incorporated.*

#### **IV.d Substantial Interference with Movement of Species or Use of Nursery Sites**

A significant impact would occur if the proposed Project interferes substantially with the movement of fish or wildlife species, established wildlife corridors, or use of native wildlife nursery sites. The project area is not within an identified wildlife corridor, nor will the project block the movement of fish or wildlife species.

Construction activities may result in direct removal of active roosting or breeding sites within oak woodland habitat. Special status bat species (pallid bat) may be present within the oak woodland habitat proposed for removal in association with project implementation. In addition these roosting sites may be present within the project area and may be disturbed due to construction activities. While no surveys have been performed for sensitive bat species, the potential exists for hibernacula/roosting sites to be present before pipeline construction commences. Implementation of Mitigation Measure BIO-6 provides for identification of native wildlife hibernacula/roosting sites and nurseries and protection to the identified sites. Mitigation Measure BIO-6 will be implemented to avoid impacts to native wildlife nurseries.

### **Required Mitigation:**

#### **BIO-6. Wildlife Hibernacula/Roosting/Nursery Site Protection Program**

SPMUD shall conduct a thorough pre-construction survey (performed by a qualified biologist) of project area for wildlife nursery sites and special status bat roost sites. The survey shall be performed by a professional biologist with experience locating nursery and bat roost sites and shall be performed prior to initial ground disturbance and tree removal. The survey area shall include the location of ground disturbance and tree removal as well as areas within 50 meters of ground disturbing activities, as well as any area where staging will occur or access will be provided for construction equipment. The contracted biologist shall report the findings of the survey to the City of Loomis and CDFW. If special status bat roosts or nursery sites are located, CDFW shall be consulted to determine courses of action and determine appropriate actions and to reduce potential impacts. Adoption of mitigation measures for roosting bat species would be considered only if special-status bat species are found to be roosting within the project impact area.

Environmental Analysis: *Less Than Significant with Mitigation Incorporated.*

### **IV.e Conflict with Local Policies or Ordinances**

As stated in Section X.b (Conflict with Applicable Land Use Plan, Policy, or Regulation), the Project is consistent with most goals and policies of the Town of Loomis and City of Rocklin General Plans; however mitigation is required for impacts to wetlands, protected trees, oak woodlands, and suitable habitat for special status species in order to achieve consistency with the City of Loomis General Plan. No special-status species or sensitive habitats are present in the developed southern portion of the Project site within the City of Rocklin limits, although removal of protected trees is expected to occur.

#### **Native Tree Protection – Town of Loomis Tree Ordinance**

Project implementation would result in the removal of protected trees, which includes native oak trees and those designated as heritage trees by Town council resolution. The removal of protected trees and the encroachment of construction activities into the root zone of these trees are subject to the Town of Loomis Ordinance No. 252 for tree conservation (Loomis Municipal Code Chapter 13.54 – Tree Conservation). Protected trees include any native oak trees with a trunk diameter of at least six inches for Interior Live Oak, Valley Oak, and Oracle Oak and four inches for Blue Oak; any oak tree with multiple trunks that have an aggregate diameter of at least ten inches; or any Heritage Tree. Protected trees also includes any trees reserved or replanted pursuant to Municipal Code Chapter 13.54.090, except for Exempt Trees and trees classified as invasive species by the California Invasive Pest Council, and non-native trees listed as not to be planted on Town-owned property in the Master Tree List.

### **Oak Tree Preservation Ordinance – City of Rocklin**

The City of Rocklin recognizes the value of native trees through adoption of both policy and ordinances in the City of Rocklin Oak Tree Preservation Ordinance, Chapter 17.77 of the City of Rocklin Municipal Code. The ordinance contains policy language explicitly written to protect native oaks. These policies regulate both the removal of protected trees and the encroachment of construction activities into the protected zones of these trees. Protected trees include any oak tree native to the Rocklin area with a DBH of six inches or greater. Heritage oaks are given special protection and are defined as oaks native to the Rocklin area having a DBH of 24 inches or greater. Ordinances 17.77.030 and 17.77.050 prohibit the removal of oak trees without the issuance of a permit and require that preservation and removal of healthy oak trees from undeveloped property shall be addressed under the application review process according to provisions of Section 17.777.100.

Protected trees within the project site were inventoried in December 2013 by International Society of Arboriculture (ISA) Certified Arborists from Foothill Associates. A total of 1,214 trees that had a DBH of six inches or greater, comprised of 679 interior live oaks (*Quercus wislizenii*), 526 valley oaks (*Quercus lobata*), and 9 blue oaks (*Quercus douglasii*), were inventoried on the site. The Project has been designed to largely avoid the existing protected trees. However, 676 protected trees are located within the Project corridor that includes areas on either side of the pipeline alignment that will accommodate equipment access, staging, and laydown. Project construction activities have the potential adversely impact the Critical Root Zone (CRZ) of protected trees within the Project corridor and/or 50 ft of soil disturbance activities. The CRZ is the area to be protected around a tree where the radius of the circle around the protected tree is the longest horizontal branch plus one (1) foot. Assuming that a 10-foot wide trench will need to be excavated for pipeline installation, this would result in the removal of approximately seven (7) trees, including five (5) valley oaks and two (2) interior live oaks. The estimated total trunk diameter of trees to be removed is 101 inches. The removal of these trees and encroachment into the CRZ of protected tree species within the Project corridor is considered a potentially significant impact. Implementation of Mitigation Measure BIO-7 is required to reduce this impact to a less than significant level.

### **Stream Corridor and Wetland Protection – Town of Loomis General Plan**

The Chapter VII (Conservation of Resources) in the Town of Loomis General Plan outlines goals and policies pertaining to protection of sensitive natural resources, including stream corridors and wetlands. Policies pertaining to the protection of stream corridors require that proposed structures and grading shall be set back greater than 100 feet from the outermost extent of riparian vegetation as defined in the Zoning Ordinance, or outside of the 100-year flood plain. The Project corridor is located outside of the 100-year floodplain and is over 150 feet from the dripline of the riparian corridor of Secret Ravine, a perennial stream that forms the southeastern border of the site. Therefore, the Project is consistent with the General Plan policies pertaining to stream corridor protection. Policies pertaining to wetland protection include an environmental review that is consistent with USACE, USFWS, and CDFW regulations, coordination with these agencies, obtaining necessary permits, and complying with impact minimization and compensatory mitigation requirements. Through implementation of Mitigation Measure BIO-5 (Mitigation for Impacts to Section 404/401 Wetlands and Waters), the Project will be in compliance with the General Plan's wetland policies.

### **Special Status Species -Town of Loomis General Plan**

As indicated in Section IV.a (Substantial Adverse Effect on Special-Status Species), implementation of the Project has potential to impact nesting raptors and migratory songbirds, valley elderberry longhorn beetle, Western burrowing owl, and sensitive plant species. Impacts to individual special-status species

and their associated habitat will be reduced to a less than significant level with implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-4. With implementation of these mitigation measures, the Project will be consistent with General Plan policies pertaining to the protection of special status species.

#### **Required Mitigation for Protected Trees:**

Impacts to protected trees will be mitigated to a less than significant level by implementation of the following:

#### **BIO-7. Preservation and Mitigation of Protected Trees**

Consistent with the Town of Loomis ordinance, the project has been designed to incorporate avoidance measures into the project design to maximize the preservation of protected trees. Since tree removal will occur as part of sewer line installation, upon completion of a final site design, SPMUD shall apply for a tree removal permit from the Town. For trees protected and retained within the project area, a Trenching-Pathway Plan must be prepared that includes an accurate plotting of the CRZ of all protected trees within the Project corridor and/or 50 ft of soil disturbance activities. A Tree Protection Plan must be prepared by a certified arborist that identifies which trees are proposed for removal and preservation and includes a program that will be implemented during and construction to insure survival of protected trees. All of the tree preservation measures required by the conditions of a discretionary project approval (the Tree Protection Plan and tree removal permit, as applicable) shall be completed and certified by Town staff or the approved arborist.

When the Town has granted a tree permit to remove a protected tree, the permit shall require the applicant to replace the tree with a living tree (or trees) of the same species, preferably on the property. The tree replacement requirement shall be calculated as provided by Tree Mitigation Table 5-3 of Town of Loomis Ordinance No. 252, Section 13.54.090 (Removal of Trees, Mitigation and Replacement) and the City of Rocklin Oak Tree Preservation Guidelines. The applicant will be required per the ordinances to replace the tree(s) and continue to replant the replacement tree(s) if the tree(s) die(s) any time within five (5) years of the initial planting. Mitigation and monitoring plan will be prepared for the replacement of protected trees in accordance with the Town of Loomis and City of Rocklin tree removal permit conditions. Annual monitoring and written report preparation by a certified arborist will be required to ensure survival of the trees.

Environmental Analysis: *Less than Significant Impact with Mitigation Incorporated.*

#### **IV.f Conflict with Conservation Plans**

A significant impact would occur if the proposed Project conflicts with the provisions of an adopted Habitat Conservation Plan.

Loomis and Rocklin are non-participating cities in the Placer County Conservation Plan, which is a Habitat Conservation Plan under the Federal Endangered Species Act and a Natural Community Conservation Plan under the California Natural Community Conservation Planning Act. The Placer County Conservation Plan applies to areas around Loomis and Rocklin, but specifically excludes Loomis, Rocklin, and Roseville. Construction and operation of the project would not affect implementation of the Placer County Conservation Plan and is sufficiently buffered from the planning area.

Environmental Analysis: *No Impact.*

## V. Cultural Resources

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?		√		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		√		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			√	
d) Disturb any human remains, including those interred outside of formal cemeteries?			√	

### Environmental Setting

Peak & Associates prepared a Cultural Resources Assessment for the Project that details the Project, cultural setting, research conducted, consultations, field assessment, and recommendations for the Project (Appendix C). The following environmental setting summarizes the complete, detailed cultural setting provided in Appendix C.

#### Prehistory

The project area is at the edge of the Central Valley cultural area near the transition to the foothills of the Sierra Nevada. The archeological sequences defined for the Central Valley are relevant to this area, although the material culture may be simplified in comparison with the major sites along the Sacramento River and tributaries. Some influence from the montane cultures has been identified at nearby sites in similar settings (c.f. Chavez 1983), but the general pattern of cultural succession reflects the Central Valley sequence.

The Central Valley region was among the first in the state to attract intensive fieldwork, and research has continued to the present day. This has resulted in a substantial accumulation of data. In the early decades of the 1900s, E.J. Dawson explored numerous sites near Stockton and Lodi, later collaborating with W.E. Schenck (Schenck and Dawson 1929). By 1933, the focus of work was directed to the Cosumnes locality, where survey and excavation were conducted by the Sacramento Junior College (Lillard and Purves 1936). Excavation data, in particular from the stratified Windmill site (CA-Sac-107), suggested two temporally distinct cultural traditions. Later work at other mounds by Sacramento Junior College and the University of California, Berkeley, enabled the investigators to identify a third cultural tradition, intermediate between the previously postulated Early and Late Horizons. The three-horizon sequence, based on discrete changes in ornamental artifacts and mortuary practices, as well as on observed differences in soils within sites (Lillard, Heizer and Fenenga 1939), was later refined by Beardsley (1954). An expanded definition of artifacts diagnostic of each time period was developed, and its application extended to parts of the central California coast. Traits held in common allow the application of this system within certain limits of time and space to other areas of prehistoric central California.

The Windmill Culture (Early Horizon) is characterized by ventrally-extended burials (some dorsal extensions are known), with westerly orientation of heads; a high percentage of burials with grave goods; frequent presence of red ocher in graves; large projectile points, of which 60 percent are of materials other than obsidian; rectangular *Haliotis* beads; *Olivella* shell beads (types A1a and L); rare use of bone; some use of baked clay objects; and well-fashioned charmstones, usually perforated.

The Cosumnes Culture (Middle Horizon) displays considerable changes from the preceding cultural expression. The burial mode is predominately flexed, with variable cardinal orientation and some cremations present. There is a lower percentage of burials with grave goods, and ocher staining is common in graves. *Olivella* beads of types C1, F and G predominate, and there is abundant use of green *Haliotis* sp. rather than red *Haliotis* sp. Other characteristic artifacts include perforated and canid teeth; asymmetrical and "fishtail" charmstones, usually unperforated; cobble mortars and evidence of wooden mortars; extensive sue of bone for tools and ornaments; large projectile points, with considerable use of rock other than obsidian; and use of baked clay.

The burial pattern of the Hotchkiss Culture (Late Horizon) retains the use of the flexed mode, and there is wide spread evidence of cremation, lesser use of red ocher, heavy sue of baked clay, *Olivella* beads of Types E and M, extensive use of *Haliotis* ornaments of many elaborate shapes and forms, shaped mortars and cylindrical pestles, bird-bone tubes with elaborate geometric designs, clam shell disc beads, small projectile points indicative of the introduction of the bow and arrow, flanged tubular pipes of steatite and schist, and use of magnesite. (The above adapted from Moratto 1984:181-183). The characteristics noted are not all-inclusive, but cover the more important traits.

The general chronology associated with this cultural succession has been revised on several occasions and there is regional variation as well. An extensive re-examination by Ragir (1972) made use of the large number of radiocarbon dates available by that time. The beginning of Windmill (at least the mature expression--there is evidence of earlier beginnings) was dated at about 2000 B.C., much later than estimates by most earlier investigators. Ragir also found a considerable overlap between Windmill and Cosumnes. In different geographic areas, these cultures appear to have coexisted for about a thousand years. The transition to Hotchkiss is much more clearly marked, coinciding with the introduction of the bow and arrow at about A.D. 500, but even so, there is persistence of the earlier culture for another 500 years or so in some localities. The problems of dealing with this complex chronological and geographic situation have led to revisions in the Central California Taxonomic System (the Early, Middle and Late Horizon system) in order to provide a more flexible system. The above trait lists would now be considered characteristic of the Windmill, Berkeley and Augustine Patterns, respectively, in the Cosumnes District. The concept of pattern, a general adaptive pattern that may be found over a large area and is independent of chronology, allows discussion of these trait associations without implying a linear progression or specific time span.

## Ethnology

The Nisenan, or Southern Maidu, occupied the upper drainages and the adjacent ridges of the Yuba, the north, middle, and south forks of the American, and at least the upper north side of the Cosumnes River. The eastern limit of the territory is conventionally believed to extend to the crest of the Sierra. As well, the Nisenan in the valley proper occupied some area west of the lower reaches of the Feather River (Wilson and Towne 1978). The Nisenan linguistically are grouped with the Northern Maidu and Konkow within the Penutian family (Riddell 1978:387). Kroeber distinguished three dialects within the larger territory occupied by the Nisenan, but Riddell indicated more distinctions are possible. Wilson and Towne (1978) distinguished several "centers" presumably linguistic and social groupings.

The Nisenan were socially integrated at the village or community group level (Wilson and Towne 1978), with the group participating in the decision-making process. The villages would range in size from 15 to 25 people to, at least in the Valley Nisenan, villages over 500 people (Kroeber 1925:821). A very large settlement consisted of a major village and associated smaller camps, whether general or specialized in nature. A headman, respected by all, residing in the major village had the authority to call upon the smaller associated groups in times of need, although the smaller groups did not have to always obey.

The villages for the Hill Nisenan were located on ridges and flats along the major streams and rivers within their territory. The satellite encampments and villages were probably located on the smaller water courses surrounding or nearby the major village. The Nisenan, as with other Sierran groups, moved into the higher elevations during the hot summer months. The main activity was the collecting of pine nuts and numerous other species of nuts, roots, and berries. This was done primarily by women and children. The foraging groups in a locale could range from small, extended family groups, composed of a woman, her immediate female kin, and their adolescent children to whole villages (Wilson and Towne 1978:389). The men spent most of their time hunting or fishing for a wide variety of fish and animals. Hunting was noted as often involving communal drives, with the best archers of the village posted to do the killing (Wilson and Towne 1978:389). Individual hunters made extensive use of decoys and imitative sounds. Most Nisenan never left the territory used by their own village group. However, there were, in most large villages, at least some individuals who engaged in rather extensive trade with several valley groups as well as Sierra groups, such as the Washoe. The Hill Nisenan probably acquired obsidian and basketry from the east, in exchange for acorns from the Washoe but it is presently unclear whether they were visited by the Washoe or they visited the Washoe or both. Presumably, the exchange network functioned in the summer and fall.

## History

The name Loomis was not used until the designation was applied to the Southern Pacific station in 1884. Previously, the place names of the area referred to small mining communities working the gravels near Secret Ravine. These communities included Placer, an area near Auburn that had a post office from October 1861 through January 1862. In 1862 the post office was moved to another town, Smithville (previously Pine Grove), in Secret Ravine, approximately six miles southwest of Newcastle (Gudde 1975: 268-325). When the Smithville post office closed in 1869, the Postal Service reopened it in Pino, an old mining camp that formed in Secret Ravine in 1850. In 1884 the Postal Service and the railroad changed the town's name to Loomis, after Jim Loomis, the local railroad agent, apparently because the name "Pino" was often confused with Reno (Gudde 1969:182; Frickstad 1955:121).

As gold mining spread throughout the region, mining districts formed. One such district was the Rocklin District, a placer-mining district in Southwestern Placer County two miles east of Rocklin and two miles south of Loomis (Clark 1970). This district was not unusually active in the main mining era of California, but like many other mining areas saw a resurgence of small-scale mining during and, to a lesser extent, after the Depression.

Although gold mining and quarrying remained important industries in Placer County, the value of the land for cultivation was recognized very early. An orchard was planted at Illinoistown as early as 1850. A variety of grains were experimented with in the valley, including wheat, barley, oats, and hay. A number of vineyards were planted in both the valley and foothills. Orchards were extremely successful in the foothills, and the Central Pacific Railroad provided a much wider market in the east for California's agricultural products. A wide variety of fruits were raised, including citrus, apples, peaches, pears, plums, cherries, olives, almonds, and walnuts (Thompson and West 1882:24-248; Lardner and Brock 1924:228-237). In the project area, a patent was issued by U.S. Land Office on May 5, 1884 to Albert G. Bradshaw



(Certificate No.1833). County assessor's records show Bradshaw proving up on land beginning in 1882. There is no mention of Bradshaw or his farm in local or regional histories.

### **V.a-b Substantial Adverse Change in Historical and Archeological Resources**

A significant impact would be one that would cause a substantial adverse change in the significance of historical or archeological resources.

For the purposes of CEQA, an historical resource is a resource listed in, or determined eligible for listing in the California Register of Historical Resources. When a project will impact a site, it needs to be determined whether the site is an historical resource, which is defined as any site which:

- (A.) Is historically or archeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and
- (B) Meets any of the following criteria:
  - 1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
  - 2. Is associated with the lives of persons important in our past;
  - 3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
  - 4. Has yielded, or may be likely to yield, information important in prehistory or history.

A request for a record search through the Northeast Information Center (NEIC) of California Historical Resources Information System (CHRIS) was submitted in January of 2015. The record search identified seven (7) resources in or near the project. Two of these are large, and partly overlapping, resources that occupy all of the project area north of Brace Road. P-31-0123 (CA-PLA-807H) consists of the remains of the Bradshaw farm, as mentioned above, with concrete foundations, a cellar and down or nearly down sheds. P-31-0126 (CA-PLA-810/H) is recorded in two discontinuous loci that occupy much of the project area between Brace Road and the northern project boundary. It includes the remains of a placer mining operation (sluicing) with associated badly eroded features. Most of the site features are located nearer to Secret Ravine than the area that will be affected by the preferred alternative. Three prehistoric bedrock milling stations are also incorporated into this site. Both of the sites that could be impacted by the proposed project were evaluated by Ric Windmiller (M.A., RPA) and found not eligible for the National Register of Historic Places.

South of the above sites, the project alignment follows built roadways, Brace Road and Dias Lane, to the southern boundary of the project area. Although there have been several surveys in the vicinity, only a small section of the preferred alternative along Dias Lane has been surveyed. The sites recorded nearby include P-31-0179 (CA-PLA-53), a bedrock milling feature east of Secret Ravine, and four resources near each other south of the project area. Two of these relate to more placer mining in the area and the other two are bedrock milling stations.

All of the current project area north of Brace Road was surveyed by Windmiller in 1995 and re-surveyed by Vallaire and Windmiller (with updates of the site records) in 2014. The one section of Dias Lane that was examined was part of a larger project surveyed by Wadsworth in 2006.

A request for a Sacred Lands File check was submitted to the California Native American heritage Commission (NAHC) in December, 2014. The NAHC responded on December 19, 2014 stating that no such resources were known in the area. The NAHC included a list of knowledgeable individuals who could be contacted for further information on Native American concerns. Letters with Project area mapping were written to these individuals requesting any information they might care to contribute regarding the project. Letter replies were received from Shingle Springs (Daniel Fonseca) and United Auburn (Gene Whitehouse). Both groups were unaware of specific resources in the area but did claim it as ancestral territory and asked to remain a consulting party to all further operations or decision making that could affect Native American resources. Tsi-Akim Maidu (Grayson Coney) replied by telephone that once he had been shown a very large site near the southern end of the project area that had numerous artifacts on the surface. This would likely be nearer Secret Ravine than the preferred alternative is in this area or, possibly, in the Croftwood area south of the current project. He too requested continuing consultation regarding the project.

There are no known significant cultural resources that will be impacted by the project. The record search and Native American communication both indicate that this is a sensitive region for cultural resources, both historic and prehistoric. Recommended mitigation measures are, therefore preventative.

**Required Mitigation:****CR-1. Pre-construction Native American Consultation**

Before any construction takes place the South Placer Municipal Utility District should initiate consultation with the three Native American groups that have expressed a concern with the project. Ideally, one group could be identified as most likely descendants and further consultation would continue with that group to insure that Native American concerns are mitigated.

**CR-2. Staging Area, Storage, and Spoil Disposal Site Review**

When construction plans are complete, areas identified for staging area, equipment storage, spoils disposal and any other off-site impacts should be examined by a qualified archeologist/historian to identify any cultural resources that might be present.

**CR-3. Trench Monitoring**

Trenching along Brace Road and Dias Lane should be monitored by a qualified archeologist/historian. These areas have not been surveyed and there is the potential for subsurface resources. The monitor should have the authority to halt trenching, if necessary, in order to evaluate any finds. Trenching could continue in other areas. Further actions would depend on whether or not the resource appears significant.

Should artifacts, exotic rock (particularly obsidian), or concentrations of bone or shell be uncovered during any construction activities, an archeologist should be consulted for on-the-spot evaluation. If the bone appears to be human, the Placer County Coroner must be contacted. If the coroner determines that the bone is most likely Native American in origin, he will contact the Native American Heritage Commission to identify most likely descendants for consultation regarding further treatment of the remains (if this has not already been accomplished).

Environmental Analysis: *Less Than Significant with Mitigation Incorporated.*

### V.c Destroy a Unique Paleontological Resource or Unique Geological Feature

A significant impact would be one that would destroy a unique paleontological resource or site or unique geological feature.

There are no unique geologic features or known paleontological resources on the Project site. This impact is less than significant.

Environmental Analysis: *Less than Significant Impact.*

### V.d Disturb Human Remains

A significant impact would be one that would disturb human remains.

The records search conducted for the Project reveals no known human burial sites. The presence of buried remains is not anticipated; however, as established in Regulatory Compliance Measure 2.6.7, if remains were to be unearthed during construction, earth disturbance would cease until the Placer County Coroner has made necessary findings as to the origin and disposition of such remains in accordance with State Health and Safety Code Section 7050.5 and Public Resource Code Section 5097.98. The Native American Heritage Commission may also be contacted to help determine the appropriate course of action. Due to the lack of known presence of human remains and the inclusion of Regulatory Compliance Measure 2.6.7, this impact is less than significant.

Environmental Analysis: *Less than Significant Impact.*

## VI. Geology and Solis

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			√	
ii) Strong seismic ground shaking?			√	
iii) Seismic-related ground failure, including liquefaction?			√	
iv) Landslides?				√
b) Result in substantial soil erosion or the loss of topsoil?			√	

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			√	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			√	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				√

## Environmental Setting

The Project area is located in central Loomis and eastern Rocklin, at an elevation of approximately 400 feet above mean sea level. The topography of the site is relatively flat with areas within roadway ROW graded. Currently, the undeveloped portion of the site contains primarily grasses and low shrubs, oak woodlands and some wetland features. There are no outcroppings, major slopes, or other distinctive landforms on or near the site.

According to the USDA and the NRCS, the Project site contains Andregg coarse sandy loam, 2 to 9 percent slopes (Soil Map Unit 106), Xerorthents, cut and fill areas (Soil Map Unit 196), and Xerorthents, placer areas (Soil Map Unit 197). The majority of the site is Andregg coarse sandy loam, with areas of Xerorthents cut and fill areas within the I-80 corridor, and Xerorthents placer areas in a small area south of I-80 in the vicinity of the Horseshoe Bar approach ramp and the jack and bore receiving pit for the I-80 crossing. Andregg coarse sandy loam is located throughout the site and its parent material is residuum weathered from granite. This soil is characterized by low runoff, low shrink-swell potential, and is well drained. Xerorthents have parent material of mine spoil or earthy fill, and are typically well drained. The Preliminary Geotechnical Report (CGI Technical Services, Inc., 2014) indicates most of the alignment is located within Penryn Pluton with some areas of artificial fill in portions of the existing roadways. Penryn Pluton consists of light grey, medium to coarse grained quartz diorite of Jurassic age containing phenocrysts of plagioclase, hornblende, quartz, and biotite (Olmstead 1971).

The California Division of Mines and Geology indicates the Project area is located near the Foothills Fault Zone area, which is a low-severity zone. No active faults are known to exist in Placer County. No Alquist Priolo Special Studies Zones are designated in Placer County. The nearest potentially active fault is the Foothills Fault System located 3.7 miles from the Project. The nearest known active fault is the Dunnigan Hills Fault located over 35 miles from Loomis. An inactive inferred fault has been mapped across the southern boundary of the Town with low potential for an event.

### VI.a-i Exposure to Loss, Injury, Death from Rupture of Known Earthquake Fault

A significant impact would occur if the Project results in exposure of people or structures to loss, injury or death from rupture of a known earthquake fault.

No substantial faults are known to be located within Placer County according to the Alquist-Priolo Earthquake Fault Zoning Maps and the State of California DOC. The area is not located within a mapped Alquist-Priolo Earthquake Fault Zone. The nearest potentially active fault is the Foothills Fault System located 3.7 miles from the Project; however this fault is not considered active. The nearest known active fault is the Dunnigan Hills Fault located over 35 miles from Loomis.

The Project is designed and constructed to maintain safety and reduce seismic risk per CBC design recommendations.

Environmental Analysis: *No Impact.*

## **VI.a-ii Exposure to Loss, Injury, Death from Strong Seismic Ground Shaking**

A significant impact would occur if the proposed Project results in exposure of people or structures to loss, injury or death from strong seismic ground shaking.

Impacts regarding strong seismic ground shaking have been discussed above in impact VI.a-i. The California Division of Mines and Geology (CDMG) classifies the region as a low severity earthquake area. As stated in the General Plan, groundshaking is the primary seismic concern where alluvial deposits are located. Additional information on ground motions is provided in the following text and graphic.

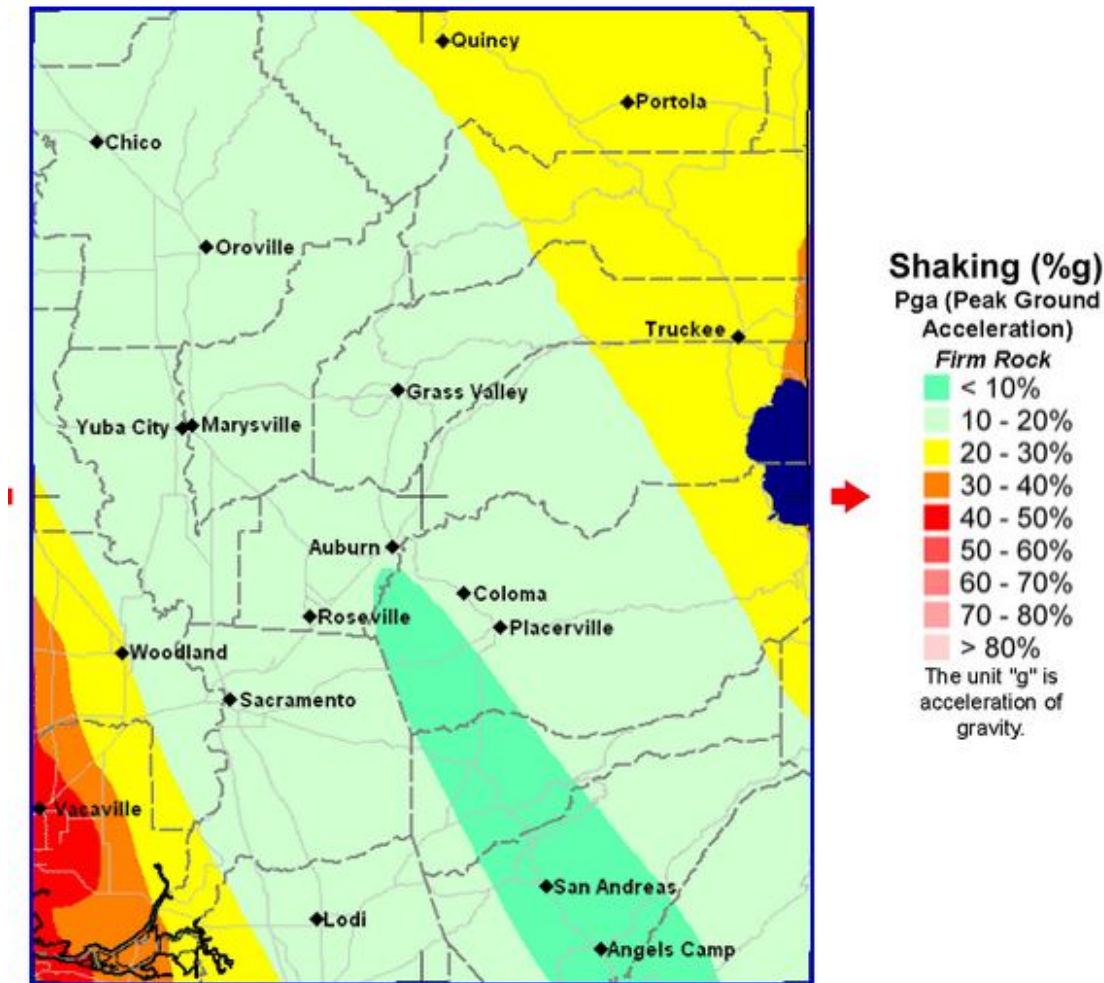
### **Ground Motions for Loomis**

Ground motions (10% probability of being exceeded in 50 years) are expressed as a fraction of the acceleration due to gravity (g). Three values of ground motion are shown: peak ground acceleration (Pga), and spectral acceleration (Sa) at short (0.2 second), and moderately long (1.0 second) periods. Ground motion values are also modified by the local site soil conditions. Each ground motion value is shown for three different site conditions: firm rock (conditions on the boundary between site categories B and C as defined by the building code), soft rock (site category C), and alluvium (site category D).

<b>Ground Motion</b>	<b>Firm Rock</b>	<b>Soft Rock</b>	<b>Alluvium</b>
<b>Pga</b>	0.103	0.112	0.15
<b>Sa 0.2 sec</b>	0.237	0.259	0.345
<b>Sa 1.0 sec</b>	0.123	0.155	0.219

NEHRP Soil Corrections were used to calculate Soft Rock and Alluvium. *Ground Motion values were interpolated from a grid (0.05 degree spacing) of calculated values. Interpolated ground motion may not equal values calculated for a specific site, therefore these values are not intended for design or analysis.*  
<http://redirect.conservation.ca.gov/cgs/rghm/pshamap/pshamap.asp?Longitude=-120.58&Latitude=40.412>

Source: California Geological Survey



Environmental Analysis: *Less than Significant Impact.*

#### **VI.a-iii Exposure to Loss, Injury, Death from Seismic-related Ground Failure**

A significant impact would occur if the proposed Project results in exposure of people or structures to loss, injury or death from seismic-related ground failure.

No habitable structures are proposed and the pipeline is engineered to comply with seismic safety.

Environmental Analysis: *Less than Significant Impact.*

#### **VI.a-iv Exposure to Loss, Injury, Death from Landslides**

A significant impact would occur if the proposed Project results in exposure of people or structures to loss, injury or death from landslides.

The area within and surrounding the Project site is relatively flat and the risk of landslide activity is minimal. No geologic landforms exist on or near the site that could result in a landslide event. The Project would not trigger or be affected by a landslide event.

Environmental Analysis: *No Impact.*

## **VI.b Result in Substantial Erosion or Loss of Topsoil**

A significant impact would occur if the proposed Project results in erosion of the loss of topsoil.

Grading activities associated with the construction of the pipeline will involve earthmoving and site clearing. These activities could expose soils to erosion processes. The extent of erosion will vary depending on slope steepness/stability, vegetation/cover, concentration of runoff, and weather conditions. The site has very little slope and will continue to have a flat topography after grading. Installation and use of the pipeline would not prevent runoff from being absorbed into the ground as the area above the pipeline that is not within existing ROW would be covered with soil and reseeded.

To prevent water and wind erosion during the construction period, a Stormwater Pollution Prevention Plan (SWPPP) would be developed for the Project as required for all projects that disturb more than one (1) acre in size in the State of California (Regulatory Compliance Measure 2.6.4). The SWPPP would include controls for pollutants, non-stormwater discharges, site-specific sediment and erosion control BMPs, run-off calculations and design details, site stabilization BMPs, and other measures. As part of the SWPPP, the Town will be required to provide sediment and erosion control measures to protect the topsoil. Stockpiled soils would be properly located, watered and/or covered to prevent soil loss due to wind erosion during construction. Each BMP would be mapped and detailed CASQA specifications included in the SWPPP. As a result of these efforts, loss of topsoil and substantial soil erosion during the construction period would be minimal. The portions of the pipeline located within existing ROW would not result in erosion or topsoil loss.

Environmental Analysis: *Less than Significant Impact.*

## **V.I.c Location on an Unstable Geological Unit or Soil**

A significant impact would occur if the proposed Project results in landslides, lateral spreading, subsidence, liquefaction, or collapse due to a location on an unstable geologic unit or soils.

Grade change will not occur in the topography to the point where the Project could expose people or structures to potential substantial adverse effects on, or offsite, such as landslides, lateral spreading, liquefaction or collapse. The Preliminary Geotechnical Report (CGI Technical Services, 2014) conducted for the Project area indicates low potential for lateral spreading, liquefaction, landslide, or other instability. Project engineering considers geologic factors and soil characteristics to ensure the pipeline is properly engineered to avoid failure.

Environmental Analysis: *Less than Significant Impact.*

## **VI.d Location on Expansive Soils**

A significant impact would occur if the proposed Project results in substantial risk to life or property due to location on expansive soil.

According to the Preliminary Geotechnical Report (CGI Technical Services, 2014), soils within the Project area are nonplastic with an expansion potential ranging from low to very low.

Environmental Analysis: *Less than Significant Impact.*

**Table 5****NRCS Soils in the Project Area**

<b>Soil Type<sup>1</sup></b>	<b>Andregg Coarse Sandy Loam, 2-9% Slopes (106)</b>
<b>Parent Material<sup>2</sup></b>	Residuum weathered from granite
<b>Surface Runoff Class<sup>3</sup></b>	Low
<b>Slowest Permeability<sup>4</sup></b>	Moderately rapid
<b>Shrink-Swell Potential<sup>5</sup></b>	Low to Very Low
<b>Corrosivity<sup>6</sup></b>	Moderate/Low
<b>Drainage Class<sup>7</sup></b>	Well drained
<b>Available Water Capacity<sup>8</sup></b>	Low (3.5 inches)
<b>Hydrologic Soil Group<sup>9</sup></b>	B

Source: NRCS 2015 Soil Survey Maps

## Table Notes:

1. See Figure 7 for locations
2. Parent material. The unconsolidated and chemically weathered mineral and organic material in which the solum of a soil is formed as a result of pedogenic processes.
3. Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.
4. Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality.
5. Shrink/Swell Potential provides criteria for determination of expansive soil properties.
6. Ratings are for Concrete/Steel. The ratings provided are the most conservative and based on the highest % representative aggregate. Site-specific soil resistivity analysis will be necessary prior to site development.
7. Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the “Soil Survey Manual.”
8. Available water capacity (AWC) (available moisture capacity). The volume of water that should be available to plants if the soil, inclusive of fragments, were at field capacity. It is commonly estimated as the difference between the amount of water at field capacity and the amount at wilting point with adjustments for salinity, fragments, and rooting depth. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as: Very low 0 to 2.5; Low 2.5 to 5.0; Moderate 5.0 to 7.5; High 7.5 to 10.0; Very high more than 10.0.
9. Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff. Hydrologic Soils Group Definitions: A =low runoff potential (0.30 to 0.45 in/hr); B=moderate runoff potential (0.15 to 0.30 in/hr); C=moderately high runoff potential (0.05 to 0.5 in/hr); D=high runoff potential (less than 0.05 in/hr)

**VI.e Inadequate Soils for Wastewater Disposal Systems**

A significant impact would occur if the proposed Project results in placement of septic tanks or alternative wastewater disposal systems where sewers are not available on appropriate soils.

The Project proposes to construct a sanitary sewer pipeline and does not propose the use of septic tanks or alternative wastewater disposal. No impact in regard to wastewater disposal and appropriate soils would occur.

Environmental Analysis: *No Impact.*



**Figure 7. Soil Map**

## VII. Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			√	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			√	

### Environmental Setting

Greenhouse gases (GHGs) are a set of compounds in the atmosphere that absorb more of the outgoing long-wave radiation from the surface of the earth than incoming short-wave solar radiation. Therefore, GHGs in the atmosphere affect the global energy balance of the atmosphere-ocean-land system, and thereby affect climate. The regulated GHGs are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). Other GHGs, such as water vapor, are not regulated at all.

There is growing concern about GHG emissions and their adverse impacts on the world's climate and environment. Because climate is the long-term average of weather, changes in climate are measured by changes in temperature, precipitation, wind patterns, storms, and other weather variables. Throughout history, climate has been changing due to forces unrelated to human activity, including solar energy input variation, volcanic activity, and changing concentrations of key atmospheric constituents like methane and CO<sub>2</sub>. These climate changes resulted in ice ages and warm interglacial periods, accompanied by large differences in snow and ice cover and associated changes in ecological systems.

Large-scale combustion of fossil fuels (i.e., coal, oil, and natural gas) by humans since the 1800s has resulted in significant increases in emissions of CO<sub>2</sub>. The resulting increase in atmospheric levels of CO<sub>2</sub> has been recorded in long-term records at numerous monitoring stations around the world. One particularly important station is located at Mauna Loa, Hawaii, which is relatively untouched by local anthropogenic sources of GHGs and other pollutants. The background ambient CO<sub>2</sub> levels measured there have increased from 285 ppm in 1850<sup>8</sup> to the current level of 397 ppm.<sup>9</sup> Simultaneously, average surface temperatures have been increasing at many locations around the world. While there is still debate on the topic, many scientists believe that the measured increasing surface temperatures are caused by the increasing atmospheric concentrations of GHGs, and that GHGs generated by human activity are contributing to global climate change, stated as follows: “human influence caused more than half of the observed warming during 1951-2010,” a conclusion the Intergovernmental Panel on Climate Change (IPCC) judged as “extremely likely.”<sup>10</sup>

<sup>8</sup> Bala, G. et al, *Nitrogen Deposition: how important is it for global terrestrial carbon uptake*, Biogeosciences, Volume 10, pp. 11077-11109, 2013, <http://www.biogeosciences-discuss.net/10/11077/2013/bgd-10-11077-2013.pdf>.

<sup>9</sup> National Oceanic and Atmospheric Administration (NOAA), Earth System Research Laboratory, Global Monitoring Division, *A Global Network for Measurements of Greenhouse Gases in the Atmosphere*, <http://www.esrl.noaa.gov/gmd/ccgg/>, accessed March 3, 2014.

<sup>10</sup> Intergovernmental Panel on Climate Change, Fifth Assessment Report (AR5), 2013

The District considers the following as potential impacts of climate change:<sup>11</sup>

- ✓ *Rising sea levels along the California coastline, particularly in San Francisco and the Sacramento–San Joaquin River Delta (Delta) due to ocean thermal expansion and melting of glacial ice, could cause flooding and saltwater intrusion in low-lying areas;*
- ✓ *Changing extreme-heat conditions, such as heat waves and very high temperatures, which could last longer and become more frequent;*
- ✓ *Increasing wildfire frequency and intensity;*
- ✓ *Increasing heat-related human deaths, infectious diseases, and increasing risk of respiratory problems caused by deteriorating air quality;*
- ✓ *Decreasing snow pack and stream flow in the Sierra Nevada Mountains, decreasing winter recreation opportunities and summer water supplies;*
- ✓ *Increasing severity of winter storms, causing higher peak stream flows and increased flooding;*
- ✓ *Changing growing season conditions that could affect California agriculture, causing variations in crop quality and yield; and*
- ✓ *Changing distribution of plant and wildlife species due to changes in temperature, competition from colonizing species, changes in hydrologic cycles, changes in sea levels, and other climate-related effects.*

The primary climate change legislation in California is AB 32, the California Global Warming Solutions Act of 2006, which focuses on reducing GHG emissions in California. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020, and Executive Order S-3-05 states the goal of further reducing GHGs emissions to a level 80% lower than 1990 emissions by 2050.

ARB approved the Climate Change Scoping Plan (Scoping Plan) in December 2008, and updated the plan on May 15, 2014.<sup>12</sup> The Scoping Plan “proposes a comprehensive set of actions designed to reduce overall GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health.” A Mandatory Reporting Regulation has been in effect since December 2008, and a Cap-and-Trade Program is operating.

## **VII.a Generate Greenhouse Gas Emissions, Either Directly or Indirectly, that may have a Significant Impact on the Environment**

GHG emissions from construction of the Project are shown in Table 3. Because these GHG emissions are temporary and climate change impacts on the environment develop over years to decades, Project GHG emissions are considered to have less than significant direct impacts. The District observed that “no single project alone would measurably contribute to a noticeable incremental change in the global average

<sup>11</sup> PCAPCD. *CEQA Handbook*, Chapter 5 – Analyzing Greenhouse Gas Emissions, page 5-2, 2013.

<sup>12</sup> ARB. *First Update to the Climate Change Scoping Plan*, May 15, 2014, [http://www.arb.ca.gov/cc/scopingplan/2013\\_update/first\\_update\\_climate\\_change\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf)

temperature, or to global, local, or micro climate. Therefore, from the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.”<sup>13</sup>

Environmental Analysis: *Less than Significant Impact.*

## **VII.b Conflict with any Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases**

The District discusses global climate change, its potential effects, and the calculation of GHG emissions in its *CEQA Air Quality Handbook*.<sup>14</sup> Even though no plan, policy or regulation contained therein sets a quantitative significance threshold for GHG emitted during construction of a project, such GHG emissions from the proposed project are not expected to “hinder the State’s ability to attain the goals identified in AB32 (i.e., reduction of statewide GHG emissions to 1990 levels by 2020)”<sup>15</sup>. Therefore, the Project’s construction GHG emissions, which are temporary, are considered less than significant. Further support for this conclusion comes from the evaluation the Bay Area Air Quality Management District (BAAQMD) made to develop quantitative thresholds of significance for their May 2011 CEQA Guidelines. They determined that it was appropriate to set quantitative thresholds for operational (long-term) emissions of GHG, but not for GHG emissions from construction, which is short term.<sup>16</sup>

Environmental Analysis: *Less than Significant Impact.*

<sup>13</sup> Ibid.

<sup>14</sup> PCAPCD. *CEQA Handbook*, Chapter 5 – Analyzing Greenhouse Gas Emissions, 2013.

<sup>15</sup> Ibid, page 5-4.

<sup>16</sup> BAAQMD. *California Environmental Quality Act Air Quality Guidelines*, pages 2-2 and 2-4, Updated May 2011. Despite follow-on litigation related to these BAAQMD thresholds, a Lead Agency has the discretionary authority to set or not set the quantitative thresholds of significance in this BAAQMD publication.

## VIII. Hazards and Hazardous Materials

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			√	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			√	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			√	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				√
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				√
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				√
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			√	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			√	

### Environmental Setting

The Project area is located in central Loomis and eastern Rocklin. Currently, the undeveloped portion of the site contains primarily grasses and low shrubs, oak woodlands and some wetland features. The



remainder of the alignment would be located in existing roadway ROW (Brace Road, Dias Lane, and crossing of Horseshoe Bar Road and I-80). The Project area includes commercial uses, residential uses, and undeveloped land. There are no sites listed on the California Department of Toxic Substances Control Envirostor database within the boundary of the Project area. The nearest site is located at the Loomis Grammar School north of the Project area, which is a school investigation site for lead with no action required as no contaminants were found. The next closest site is Loomis Hill Estates located south of the Project area, where a voluntary cleanup occurred for metals and pesticides due to the previous use of the site as an orchard. Neither site is located within the Project area and do not pose a hazardous materials threat. A search for California State Waterboard Spills, Leaks, Investigation, and Cleanup (SLIC) sites and Leaking Underground Fuel Tank (LUFT) cleanup sites reveals no sites within the Project area. The nearest site is located at the Loomis Veteran's Memorial Hall north of the Project area and this site has been cleaned and the case is closed. The General Plans do not designate high fire danger areas in Loomis or Rocklin. The surrounding lands consist of residential uses, commercial areas, and undeveloped land.

### **VIII.a-b Hazard to the Public or the Environment through Transport, Use, or Disposal of Hazardous Materials, Foreseeable Upset and Accident of Release of Hazardous Materials**

A significant impact would occur if the proposed Project produces a substantial risk to the public from routine transportation, use, or disposal of hazardous material. A significant impact would occur if the proposed Project releases hazardous materials into the environment, creating significant hazards to the public or the environment.

Construction of the Project will require transport and use of small quantities of hazardous materials in the form of gasoline, diesel and oil. There is the potential for small spills when refueling of construction equipment occurs, however standard construction Best Management Practices (BMPs) included in the SWPPP (Regulatory Compliance Measure 2.6.4) will reduce the potential for the release of construction-related fuels and other hazardous materials to stormwater contamination from spills or leaks, control the amount of runoff from the site, and require proper disposal or recycling of hazardous materials.

Project operation involves the collection and conveyance of sanitary sewage through underground pipelines. The conveyance of sewage and operation of the facilities will comply with local, State and Federal regulatory requirements. The pipeline is monitored for leaks and maintained to ensure effective and safe operations.

Environmental Analysis: *Less than Significant Impact.*

### **VII.c Hazardous Materials Near School**

A significant impact would occur if the proposed Project emits or handles hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The nearest school, Little Orchard Preschool, is located within the Project area on Brace Road. As discussed in VII.a-b, construction materials would be safely stored and appropriately used onsite per the SWPPP. The Project is a sanitary sewer conveyance, which removes wastewater from the area to the treatment operations. The Project would not create hazardous substances or waste.

Environmental Analysis: *Less than Significant Impact.*

**VIII.d Location on Hazardous Material Site**

A significant impact would occur if the proposed Project is located on a list of hazardous materials sites.

The Project does not involve land that is listed as a hazardous materials site pursuant to Government Code Section 65962.5. There are no listed sites in the Project area and the land within the Project area has not been historically used in ways in which hazardous materials would be present.

Environmental Analysis: *No Impact.*

**VIII.e-f Location near Airport Land Use Plan or Private Airstrip**

A significant impact would occur if the proposed Project results in a location near a public airport or private airstrip.

The nearest airport, Auburn Municipal Airport, is over 12 miles northeast of the Project site. McClellan Airfield in Sacramento is located over 13 miles southwest of the Project site. The Project will not result in a safety hazard for people working in the Project area.

Environmental Analysis: *No Impact.*

**VIII.g Impaired Implementation of Emergency Plan**

A significant impact would occur if the proposed Project impairs implementation of or physically interferes with an adopted emergency response plan or emergency evacuation plan.

The Project will not interfere with implementation of an emergency response plan or evacuation. Although construction would occur within roadways, at least one travel lane would remain open with onsite signage and flagging to maintain emergency and non-emergency access during construction. Operations would not affect emergency access.

Environmental Analysis: *Less than Significant Impact.*

**VIII.h Exposure to Loss, Injury or Death Due to Wildland Fires**

A significant impact would occur if the proposed Project exposes people or structures to a significant risk of loss, injury or death involving wildland fires.

The Project would be located underground and does not include inhabitable structures. Construction would include clearing of vegetation; however fire extinguishers would be located onsite and on equipment and appropriate spark arrestors and other safety devices would be employed. No homes are located on the property that would require vegetation removal. Loss, injury, or death due to wildland fires is not associated with project construction or operation.

Environmental Analysis: *Less than Significant Impact.*

## IX. Hydrology and Water Quality

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Violate any water quality standards or waste discharge requirements?			√	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			√	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			√	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			√	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			√	
f) Otherwise substantially degrade water quality?			√	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				√
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				√
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				√
j) Inundation by seiche, tsunami, or mudflow?				√



## Environmental Setting

The Project area is located in central Loomis and eastern Rocklin, within the Lower American River watershed. Currently, the undeveloped portion of the site contains primarily grasses and low shrubs, oak woodlands and some wetland features. The remainder of the alignment would be located in existing roadway ROW (Brace Road, Dias Lane, and crossing of Horseshoe Bar Road and I-80). Secret Ravine, a perennial stream flowing northeast to southwest, is located south and east of the alignment, at times within 500 feet of the pipeline. Water quality within Secret Ravine is generally good with the exception of sedimentation and toxicity from heavy metals. The elevation of the Project area ranges between 300 and 400 feet above mean sea level. Located within Zones X and AE of the flood insurance map (Community Number 06061C0418F), Zone X corresponds to areas outside the 500-year floodplain. No base flood elevations or depths are calculated within this zone and flood insurance purchase is not required. Zone AE corresponds to areas where base flood elevations have been determined, and is located along Secret Ravine. Within the Project area, Zone AE is limited to the area in the vicinity of the I-80 pipeline segment, with a base flood elevation of approximately 370 feet above mean sea level. The tunneling pit north of I-80 would be located within Zone AE, while the tunneling pit south of I-80 would be located outside Zone AE. The pipeline would be placed below the base flood elevation at this location to connect to the existing facilities/manhole north of I-80. Tunneling would not occur during the rainy season to avoid additional dewatering from storm events. Folsom Lake Reservoir is located approximately 3.5 miles southeast of the Project and the Project is located above the dam on Folsom Lake.

Surface water generally drains toward Secret Ravine within the Project area. The Project area is underlain by the North American Subbasin of the Sacramento Valley Groundwater Basin. In 2012, WKA conducted geotechnical exploration at the southern end of the alignment and did not encounter groundwater to depths of up to approximately 8.5 feet. Shallow ponds exist along Diaz Lane and are likely recharged from groundwater, implying a shallow depth to water. According to the Preliminary Geotechnical Report (2014) prepared for the Project, groundwater is likely to be encountered in areas with relatively deeper excavations into underlying granodiorite.

### IX.a Violate Water Quality Standards or Waste Discharge Requirements

A significant impact would occur if the proposed Project violates water quality standards or water discharge requirements.

Construction activities, such as removal of ground vegetation, grading, excavation, or other earthmoving activities, will disturb the ground surface, potentially resulting in soil erosion. The extent of erosion will vary depending on slope steepness/stability, vegetation/cover, concentration of runoff, and weather conditions. The site has minimal slope. The Project reestablishes vegetative cover in unpaved areas disturbed by construction activities. During the construction period, stormwater will be captured and treated within the Project site in compliance with the Statewide Construction General Permit (Board Order No. 2009-0009-DWQ).

Regulatory compliance measures are included in the Project to ensure water quality standards and waste discharge requirements are not violated. Regulatory Compliance Measure 2.6.4 includes the preparation and implementation of the SWPPP, including controls for pollutants, non-stormwater discharges, site-specific BMPs, run-off calculations and design details, stabilization BMPs, and other measures. As part of the SWPPP, SPMUD will be required to install erosion and sediment control measures, wind erosion control measures and tracking control BMPs to protect the topsoil. Stockpiled soils will be properly located, watered and/or covered to prevent loss due to wind erosion. The site-specific SWPPP includes

erosion and sediment control BMPs and non-stormwater and material management BMPs. Each BMP would be mapped and detailed with CASQA specifications outlined. Implementation of the SWPPP and its BMPs directed at sediment and erosion control and proper site management in conjunction with daily and storm event monitoring would ensure water quality standards and discharge requirements are maintained throughout the construction period. Site revegetation would protect topsoil and provide for sediment and erosion control for protection of water quality.

Environmental Analysis: *Less than Significant Impact.*

### **IX.b Deplete Groundwater Supplies or Interfere with Groundwater Recharge**

A significant impact would occur if the proposed Project depletes groundwater supplies or interferes substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

The Project will not utilize water for operations. Water used during construction will be trucked onsite.

Although approximately 0.014 acre of impervious surface coverage is proposed as a result of new manholes, only 0.007 acre will be new coverage as the remaining coverage will be located within existing roadway. This coverage represents less than 1% of the site, and will not substantially interfere with groundwater recharge. The portion of the project located outside the roadways will not incur coverage beyond that which is proposed for manholes as a result of this Project, and substantial interference with groundwater recharge would not occur in relation to construction and operation of the Project.

Environmental Analysis: *Less than Significant Impact.*

### **IX.c Alter the Existing Drainage Pattern to Result in Substantial Erosion or Siltation**

A significant impact would occur if the proposed Project alters the existing drainage pattern of the site or area, which would result in substantial erosion or siltation on- or off-site.

A SWPPP and site-specific temporary BMPs would be in place during construction, as described in impact IX-a. Drainage patterns would change minimally as a result of the Project. Unpaved areas disturbed during construction would be stabilized with vegetation, mulch, or other surfacing to prevent sedimentation, erosion and siltation. Sufficient pervious areas would be retained within the Project site to infiltrate precipitation. Coverage would continue to maintain pre-construction elevations and slope to maintain the current drainage pattern. Approximately 300 square feet of new coverage would occur

Environmental Analysis: *Less than Significant Impact.*

### **IX.d Alter the Existing Drainage Pattern to Increase the Rate or Amount of Surface Runoff**

A significant impact would occur if the proposed Project alters the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site.

Drainage patterns would change minimally as a result of Project construction. Areas disturbed during construction would be covered with vegetation, mulch, or other surfacing to protect against rainfall

impact and infiltrate precipitation. Impact analyses for Impacts IX.b and IX.c also discuss potential impacts to drainage.

The Project does not alter the existing drainage pattern of the site or substantially increase the rate or amount of surface runoff in a manner to result in flooding on- or off-site. Currently surface water accumulates, ponds and infiltrates on-site during heavy rains as a result of the site topography and would continue after Project construction as disturbed areas would be restored to meet current grade and the creation of an additional 0.007 acre of impervious surface would not substantially increase runoff.

Environmental Analysis: *Less than Significant Impact.*

### **IX.e Create or Contribute Runoff Water Exceeding Capacity of Stormwater Drainage**

A significant impact would occur if the proposed Project creates or contributes runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Stormwater runoff within unroaded areas would continue to follow existing drainage patterns. Runoff in roaded areas would not increase and would continue to be directed toward existing drainages. Potential impacts regarding stormwater runoff that could potentially exceed the capacity of existing stormwater drainage systems have been discussed in the impact analysis for Impacts IX.b, IX.c and IX.d.

Environmental Analysis: *Less than Significant Impact.*

### **IX.f Substantially Degrade Water Quality**

A significant impact would occur if the proposed Project substantially degrades water quality.

Impacts to water quality have been discussed in the impact analysis for IX.a.

Environmental Analysis: *Less than Significant Impact.*

### **IX.g Place Housing within a 100-year Flood Hazard Area**

A significant impact would occur if the proposed Project places housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

The Project does not propose housing or other occupied structures. According to Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) for Community Number 06061C0418F the majority of the Project site is located outside the floodplain in Zone X; however a portion of the I-80 crossing is located within FEMA Zone “AE”, an area where base flood elevations have been determined. However, the Project is an underground pipeline and would not place persons at risk or impede or redirect flows.

Environmental Analysis: *No Impact.*

**IX.h Place Structures within 100-year Flood Hazard Area that would Impede or Redirect Flood Flows**

A significant impact would occur if the proposed Project places structures within a 100-year flood hazard area, which would impede or redirect flood flows.

Impacts regarding the placement of structures in a 100-year flood hazard area that could impede or redirect flood flows have been discussed in the analysis of Impact IX.g.

Environmental Analysis: *No Impact.*

**IX.i Expose People or Structures to a Risk of Loss, Injury, or Death**

A significant impact would occur if the proposed Project exposes people or structures to risk of loss, injury or death involving flooding.

Impacts regarding the placement of structures in a 100-year flood hazard area that could impede or redirect flood flows have been discussed in the analysis of Impact IX.g.

Environmental Analysis: *No Impact.*

**IX.j Hazards Due to Seiche, Tsunami, or Mudflow**

A significant impact would occur if the proposed Project causes hazards of inundation by seiche, tsunami, or mudflow.

There are no lakes or major waterbodies near the Project site. Secret Ravine and tributaries are located south and northeast of the Project site. Low-density residential and undeveloped land are located between the Project site and Secret Ravine. The potential for mudflow on the Project site is less than significant as the site is relatively flat. There is no potential for seiche or tsunami to occur on site.

Environmental Analysis: *No Impact.*

## X. Land Use and Planning

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Physically divide an established community?				√
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			√	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				√

### Environmental Setting

The Project alignment is identified in the Town of Loomis General Plan and Zoning Map as General Commercial (CG), Tourist/Destination Commercial (CT), Residential Estate (RE), and Rural Residential (RR). In the City of Rocklin, the alignment is zoned Unclassified (UN) and Residential Single Family 12,500 sf minimum lots (R1-12.5), while the Rocklin General Plan identifies the affected parcels as Low Density Residential (LDR) and Medium Density Residential (MDR). The Project area currently includes commercial uses at the northern terminus of the alignment, I-80, a park and ride lot and undeveloped land between I-80 and Betty Lane, and residential uses from Betty Lane through the alignment southern terminus on Dias Lane. Surrounding land uses include the Raley's shopping center, residences to the west and south, and currently undeveloped but planned residential and commercial uses.

A review of the relevant General Plan goals and policies is attached in Appendix D. This analysis shows the Project, with mitigation, is consistent with the General Plan.

#### X.a Physically Divide an Established Community

A significant impact would occur if the proposed Project physically divided an established community.

The Project is located underground within undeveloped land and existing roadway ROW. The Project will not physically divide an established community, but will serve the existing and future community.

Environmental Analysis: *No Impact.*

#### X.b Conflict with Applicable Land Use Plan, Policy, or Regulation

A significant impact would occur if the project if the proposed Project conflicted with the City of Rocklin or Town of Loomis General Plan or Zoning Code.

The Project alignment is identified in the Town of Loomis General Plan and Zoning Map as General Commercial (CG), Tourist/Destination Commercial (CT), Residential Estate (RE), and Rural Residential (RR). In the City of Rocklin, the alignment is zoned Unclassified (UN) and Residential Single Family 12,500 sf minimum lots (R1-12.5), while the Rocklin General Plan identifies the affected parcels as Low Density Residential (LDR) and Medium Density Residential (MDR). Utilities, including sanitary sewer lines as proposed by the Project, are an allowed and necessary use within these land use designations and zones. As shown in the General Plan consistency table in Appendix D, the Project is consistent with the General Plan with mitigation implementation. The Project achieves consistency with most goals and policies; however mitigation is required in regard to cultural and biological resources to achieve consistency, as discussed under Impact Sections IV and V.

Environmental Analysis: *Less than Significant Impact.*

### **X.c Conflict with Applicable Habitat Conservation Plan or Natural Community Conservation Plan**

A significant impact would occur if the proposed Project conflicts with a conservation plan.

The Project is not located within or will not conflict with any adopted conservation plans or natural community conservation plans.

Environmental Analysis: *No Impact.*

## **XI. Mineral Resources**

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				√
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local General Plan, specific plan or other land use plan?				√

### **Environmental Setting**

The Project alignment is identified in the Town of Loomis General Plan and Zoning Map as General Commercial (CG), Tourist/Destination Commercial (CT), Residential Estate (RE), and Rural Residential (RR). In the City of Rocklin, the alignment is zoned Unclassified (UN) and Residential Single Family 12,500 sf minimum lots (R1-12.5), while the Rocklin General Plan identifies the affected parcels as Low Density Residential (LDR) and Medium Density Residential (MDR). The Project site is not currently used for mineral extraction activities. The Project site is not delineated on any local land use plan as a locally important mineral resource recovery site.

## **XI.a-b Loss of Known Mineral Resource or Locally-Important Mineral Resource Recovery Site**

The state legislature adopted the Surface Mining and Reclamation Act (SMARA) in 1975, which designated Mineral Resource Zones (MRZ) for areas possessing minerals, which are of statewide or regional significance. A significant impact would occur if the proposed Project results in the loss of availability of a mineral resource of value to the region and state, or result in a loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

California Department of Conservation, Division of Mines and Geology Open File Report 95-10 Mineral Land Classification of Placer County, CA (Lloyd, R., 1995) indicates the Project area is located in MRZ-4, which are areas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources. No specific resources are identified within the Project area in Open File Report 95-10. The Project site is not delineated on local land use plans as a locally important mineral resource recovery site. The existence of the Project will not result in the loss of availability of any mineral resources.

Environmental Analysis: *No Impact.*

## **XII. Noise**

<b>Would the Project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies?			√	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?		√		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			√	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			√	

<b>Would the Project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				√
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				√

## Environmental Setting

### **Background Information on Noise**

#### *Fundamentals of Acoustics*

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective: one person's music is another's headache.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10



dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level ( $L_{eq}$ ), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The  $L_{eq}$  is the foundation of the composite noise descriptor,  $L_{dn}$ , and shows very good correlation with community response to noise.

The day/night average level ( $L_{dn}$ ) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because  $L_{dn}$  represents a 24-hour average, it tends to disguise short-term variations in the noise environment. Table 6 lists several examples of the noise levels associated with common situations.

The General Plan Noise Element sets forth noise compatibility standards for various land uses. For noise sensitive structures such as residences, exterior noise levels up to 65 dBA  $L_{dn}$  are acceptable, and interior noise levels of up to 45 dBA  $L_{dn}$  are acceptable (Town of Loomis General Plan, 2001). If the duration of the sound is less than a minute, the allowable noise level may increase to 70 dB. The Rocklin General Plan limits exterior noise levels to 55 dBA (stationary) to 60 dB  $L_{dn}$  non-stationary and 45 dB  $L_{dn}$  interior (Rocklin General Plan, 2012)

<b>Table 6</b>		
<b>Typical Noise Levels</b>		
<b>Common Outdoor Activities</b>	<b>Noise Level (dBA)</b>	<b>Common Indoor Activities</b>
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. November 2009.

### *Effects of Noise on People*

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

### *Vibration*

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The Loomis Municipal Code addresses vibration levels in Title 13 Zoning, Section 13.30.F General Property Development and Use Standards, which states, “No ground vibration shall be generated that is perceptible without instruments by a reasonable person at the property lines of the site, except for vibrations from temporary construction or demolition activities, and motor vehicle operations.” The Rocklin Municipal Code does not address construction vibration.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 7, which was developed by Caltrans, shows the vibration levels that would normally be required to result in damage to structures. The vibration levels are presented in terms of peak particle velocity in inches per second. Table 7 indicates that the threshold for damage to structures ranges from 2 to 6 in/sec. One-half this minimum threshold or 1 in/sec p.p.v. is considered a safe criterion that would protect against architectural or structural damage. The general threshold at which human annoyance could occur is noted as 0.1 in/sec p.p.v. The Transportation Research Board Building Structure Vibration Criteria indicates that adverse ground vibration impacts occur at 0.5 in/sec p.p.v. for historic or some old buildings and residential structures, while new residential structures would not experience impacts until vibration reached 1.0 in/sec p.p.v. (Transportation Research Board 1997). Industrial buildings and bridges experience vibration impacts at 2.0 in/sec p.p.v.

<b>Table 7</b>			
<b>Effects of Vibration on People and Buildings</b>			
<b>Peak Particle Velocity inches/second</b>	<b>Peak Particle Velocity mm/second</b>	<b>Human Reaction</b>	<b>Effect on Buildings</b>
0-.006	0.15	Imperceptible by people	Vibrations unlikely to cause damage of any type
.006-.02	0.5	Range of Threshold of perception	Vibrations unlikely to cause damage of any type
.08	2.0	Vibrations clearly perceptible	Recommended upper level of which ruins and ancient monuments should be subjected
0.1	2.54	Level at which continuous vibrations begin to annoy people	Virtually no risk of architectural damage to normal buildings
0.2	5.0	Vibrations annoying to people in buildings	Threshold at which there is a risk of architectural damage to normal dwellings
1.0	25.4		Architectural Damage
2.0	50.4		Structural Damage to Residential Buildings
6.0	151.0		Structural Damage to Commercial Buildings

Source: Survey of Earth-borne Vibrations due to Highway Construction and Highway Traffic, Caltrans 1976.

## **Existing Conditions**

Sources of ambient noise in the Proposed Project vicinity are primarily associated with traffic along the local roadway network, particularly I-80.

### *Existing Noise Receptors*

Some land uses are considered more sensitive to ambient noise levels than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries and hospitals. Sensitive noise receptors may also include threatened or endangered noise sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. In the vicinity of the project site, the primary noise sensitive land uses include large lot single-family residences. These residences are located in close proximity to the project site along Betty Lane, Brace Road and Dias Lane. Residences are located at distances ranging from 300 feet around Horseshoe Bar Road to 100 feet along Betty Lane, and at various distances on Brace Road and Dias Lane with the closest residences approximately 40 feet from the alignment.

## **XII.a Exposure to Noise Levels in Excess of Standards Established in the Local General Plan or Noise Ordinance**

A significant impact would occur if the proposed Project exposes people to or generates noise excessive than standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

### **Operation Noise**

The Project proposes to operate an underground sanitary sewer pipeline, which would not generate noise or exceed noise standards during operations. Occasional maintenance of the pipeline would generate minor, temporary noise that would not exceed established standards. Therefore, the noise levels would comply with the 55 to 65 dBA Ldn noise level standards.

### **Construction Noise**

Construction noise was analyzed using data compiled by the US Environmental Protection Agency that lists typical noise levels at 50 feet for construction equipment and various construction activities (Table 8). Noise would be generated during the construction phase by increased truck traffic on area roadways and on-site grading and excavation. A significant project-generated noise source would include truck traffic associated with transport of heavy materials and equipment to and from construction sites and the movement of heavy construction equipment on the project site. This noise increase would be of short duration, and would occur during daytime hours (7:00 a.m. to 7:00 p.m.). Construction of phases I and II (I-80 and Horseshoe Bar Road crossing) is expected to occur over an 11 month period, while construction of the pipeline from Horseshoe Bar Road to the terminus on Dias Lane is expected to occur over a four month period. Noise levels would be intermittent and dependent upon the location of activity. It can be expected that some equipment will be used within 50 feet of residences along Brace Road and Dias Lane, with noise levels periodically exceeding 80 dBA.

**Table 8****Construction Equipment**

<b>Equipment Type</b>	<b>Typical Noise Level (dBA) 50 ft from Source</b>
Pickup trucks (3)	55
Haul Truck	84
Water Truck	84
Excavator	85
Boring Machine	80
Backhoe	80
Compactor	80
Wheeled Loader	80

FHWA Construction Noise Handbook

[http://www.fhwa.dot.gov/environment/noise/construction\\_noise/handbook/handbook09.cfm](http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm)

As stated in the Loomis General Plan, the exterior standard for noise sensitive structures is 65 dBA Ldn with an interior standard of 45 dBA Ldn. The portion of the Project area that includes the I-80 crossing and Horseshoe Bar Rd. crossing and a portion of the Turtle Island property lies within the 65 dBA contour.

Construction of the Proposed Project would temporarily increase noise levels during construction. However, the Town of Loomis General Plan sets policies to limit the amount of noise associated with construction based upon the following policies, which are Project measures as discussed in the Project Description:

- Noise Element Policy 19: Require that construction activities adjacent to residential units be limited as necessary to prevent adverse noise impacts.
- Noise Element Implementation Policy 8. The Town shall consider the use of temporary noise barriers, limited hours of operation, limiting times of year for construction near schools to reduce construction-related noise

In addition, the Noise Standards in the Zoning Code (13.30.070) states that in order to allow construction schedules to take advantage of the weather and normal daylight hours, and to ensure that nearby residents as well as nonresidential activities are not disturbed by the early morning or late night activities, the town limits construction to the allowable hours of 7:00 am to 7:00 pm Monday through Friday, 8:00 am to 7:00 on Saturday. This includes truck deliveries during construction. Project Measure 2.6.2 limits construction to between these hours in order to comply with Town requirements and reduce noise effects on area residents. The Project also includes Project Measure 2.6.3 Construction Equipment Muffling, which requires shrouding or shielding of impact tools and muffling or shielding intake and exhaust ports on construction equipment to reduce construction noise levels. It is SPMUD standard practice to coordinate with residents along the construction corridor and residents will be able to contact SPMUD regarding construction schedules or questions regarding the Project.

Since the Project does not propose new residential units, does not result in operation noise, is located in an area of relatively flat topography, and includes measures to reduce construction noise (Project Measure 2.6.3), detailed acoustical analysis would not be necessary. Implementation of these policies as Project measures would limit the noise impacts associated with construction.

Environmental Analysis: *Less than Significant Impact.*

## **XII.b Exposure to or Generation of Excessive Groundborne Vibration or Noise Levels**

A significant impact would occur if the proposed Project exposes people to or generates excessive groundborne vibration or noise levels.

The nearest residence is within 20 feet of the alignment, located along the east side of Dias Lane. Other residences are located within approximately 40 feet of the alignment on Dias Lane and Brace Road. As discussed in XII.a, noise levels would not exceed 65 dBA Ldn during operations.

Construction is expected to occur at considerable distances from existing occupied residences and would be removed from future on-site uses. Comparing Table 7, which contains the criteria for acceptable vibration levels, to Table 9, which shows potential vibration impacts, and with the Transportation Research Board vibration impact threshold of 0.5 in/sec p.p.v., it is not expected that vibration impacts would occur that would cause any structural damage; however, homes within 20 feet of the construction area have the potential to experience strong vibration at the threshold level where the risk of damage to structures can occur per Caltrans criteria. Therefore, precautionary mitigation is included (NOISE-1) to ensure potential impacts are addressed.

If rock is encountered that cannot be removed through regular excavation methods (backhoe), small levels of blasting or newer scraping methods may be necessary. While blasting can result in larger levels of vibration and noise, SPMUD typically employs other methods of scraping rock fragments that results in less noise production and will employ this method prior to blasting. If blasting is necessary, SPMUD's standard practice is to notify affected property owners.

<b>Table 9</b>		
<b>Vibration Levels for Varying Construction Equipment</b>		
<b>Type of Equipment</b>	<b>Peak Particle Velocity @ 25 ft. / @ 40 ft (inches/second)</b>	<b>Approximate Velocity Level @ 25 ft.</b>
Large Bulldozer	0.089 / 0.04	87 (VdB)
Loaded Trucks	0.076 / 0.04	86 (VdB)
Small Bulldozer	0.003 / 0.00	58 (VdB)
Auger/drill Rigs	0.089 / 0.04	87 (VdB)
Jackhammer	0.035 / 0.02	79 (VdB)
Vibratory Hammer	0.070 / 0.04	85 (VdB)
Vibratory Compactor/roller	0.210 / 0.10	94 (VdB)

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006

### **Required Mitigation:**

#### **NOISE-1. Pre-construction Structural Documentation and Post-construction inspection**

Where homes or structures are located within 25 feet of the construction corridor, South Placer Municipal Utility District shall conduct visual pre- and post-construction home inspections, with photographic and/or videographic records, and will compensate those homeowners if any damage is caused as a result of project construction.

Environmental Analysis: *Less Than Significant with Mitigation Incorporated.*

### **XII.c Permanent Increase in Ambient Noise Levels**

A significant impact would occur if the proposed Project causes a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the proposed Project.

Operation of the pipeline would not result in audible noise as the pipeline would be located underground and would not produce ambient noise. Operations would not require daily traffic and therefore would not generate traffic noise. Noise associated with the occasional maintenance of the pipeline would not occur regularly, would not be permanent, and would not exceed the General Plan noise threshold.

Environmental Analysis: *Less than Significant Impact.*

### **XII.d Temporary or Periodic Increase in Ambient Noise Levels**

A significant impact would occur if the proposed Project causes a substantial or temporary periodic increase in ambient noise levels in the project vicinity above levels existing without the proposed Project.

As discussed in XII.c, operations would not result in ambient noise, except for occasional maintenance activities, which would not be substantial. Construction activities may result in temporary increased noise levels; however, such increases in noise are permissible under the General Plans if construction occurs during the daytime (7:00 a.m. to 7:00 p.m.). As discussed in Impact XII.a construction noise would be reduced through implementation of Project measures as discussed in the Project Description such as use of equipment muffling, reduced equipment idling, placement of equipment away from residences, and other measures. Temporary noise increases as a result of construction would comply with General Plan policies and would not result in a significant impact.

Environmental Analysis: *Less than Significant Impact.*

### **XII.e Exposure to Excessive Noise Levels from an Airport**

A significant impact would occur if the proposed Project exposes people to excessive noise levels due to airports.

The nearest airport, Auburn Municipal Airport, is over 12 miles northeast of the Project site. McClellan Airfield in Sacramento is located over 13 miles southwest of the Project site. There is no impact associated with airport noise.

Environmental Analysis: *No Impact.*

### **XII.f Exposure to Excessive Noise Levels from a Private Airstrip**

A significant impact would occur if the proposed Project exposes people to excessive noise levels due to a private airstrip.

There are no private airstrips in the Project vicinity.

Environmental Analysis: *No Impact.*

### XIII. Population and Housing

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			√	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			√	
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			√	

#### Environmental Setting

According the U.S. Census Bureau (American Factfinder, 2015), the 2010 population of Loomis was 6,430 residents with 2,465 housing units. Population estimates for 2013 show the number of residents rising to 6,688 (<http://factfinder2.census.gov> 2/25/15). American Factfinder estimates for the 2010 Census show an estimated 2,339 housing units in Loomis, of which an estimated 4% were vacant (<http://factfinder2.census.gov> 2/25/15). The Census identifies the City of Rocklin having a 2010 population of 56,974 residents increasing to 59,738 persons in 2013. Housing estimates for 2013 indicated 22,381 total units, of which 4% were vacant. By comparison, the 2010 U.S. Census shows a population of 348,432 residents in Placer County and 153,886 housing units. Census estimates for 2013 show the population of Placer County rising to 367,309.

#### XIII.a Induce Substantial Population Growth

A significant impact would result if the proposed Project induces substantial population growth in an area, either directly or indirectly.

The Project will result in the construction and operation of a sanitary sewer line. Construction of the Project will utilize local or regional workforces and will not require the development of worker housing. Operation and maintenance of the pipeline will be conducted locally by SPMUD. The diversion pipeline is proposed to address existing conveyance capacity issues as the existing line is operating at capacity. Planned development in the area per the General Plan will result in negative capacity and a need for new facilities. This Project will result in pipeline capacities of up to 5.71 mgd, which will meet the planned demand in the area. Extension of sewer service to the Project site would not indirectly induce growth beyond that which was planned and approved in the General Plan.

Environmental Analysis: *Less than Significant Impact.*



### **XIII.b Displace Substantial Numbers of Existing Housing**

A significant impact would result if the proposed Project displaces substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Housing or people will not be displaced by the Project. The Project is located on land that is either undeveloped and lacks existing structures or located in roadway ROW. No homes would be removed or persons displaced by the construction or operation of the Project. The Project would require the acquisition of permanent easement within private property, but would not affect the presence of existing residences. Operation of the Project would allow for the planned residential development within the area.

Environmental Analysis: *Less than Significant Impact.*

### **XIII.c Displace Substantial Numbers of Existing People**

A significant impact would result if the proposed Project displaces substantial numbers of existing people, necessitating the construction of replacement housing elsewhere.

Impacts regarding the displacement of people have been discussed in Impact XIII-b.

Environmental Analysis: *Less than Significant Impact.*

## **XIV. Public Services**

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			√	
Police protection?			√	
Schools?			√	
Parks?			√	
Other public facilities?			√	

## Environmental Setting

The Town of Loomis is served by the Placer County Sheriff's Department, Loomis Fire Protection District, South Placer Fire District, Placer Union High School District and Loomis Union School District, and the Auburn-Placer County Library System. The City of Rocklin is served by the Rocklin Police Department, Rocklin Fire Department, the Auburn-Placer County Library System, the Rocklin Unified School District, and City of Rocklin Community Services and Facilities Department (parks).

The Placer County Sheriff's Department South Placer Substation is located at 6140 Horseshoe Bar Road in Loomis, just north of the Project area. Key Sheriff's Department personnel include the Sheriff, Undersheriff, support services Commander, field operations Commander, corrections Commander, and support staff. Operations include air operations, coroner, corrections, dispatch, dive team, hostage negotiations, investigations, canine, patrol (120 uniformed officers), search and rescue, and many other staffed units (<http://www.placer.ca.gov/departments/sheriff/unitsanddivisions>, March 4, 2015). The Rocklin Police Department is located at 4080 Rocklin Road, roughly two miles southwest of the Project area. Operations include patrol, SWAT, animal control, canine, traffic/motors, reserve, field training, detective units, and support staff. Personnel include the police chief, two police captains, three lieutenants, five sergeants, and police officers (City of Rocklin Police, <http://www.rocklin.ca.us/civica/filebank/blobdload.asp?BlobID=2863>, March 4, 2015).

The Loomis Fire Protection District is located at 5870 Horseshoe Bar Road in Loomis, just north of the Project area. The District operates two Type I fire engines, two Type II brush engines, one Type IV grass unit and two staff vehicles. Staff include eight full-time firefighters, 12 volunteer firefighters, and one support personnel (Firedepartment.net, 3/3/15), including a Fire Chief, three fire captains, firefighters, and reserve and apprentice firefighters. The South Placer Fire District provides support to the area from Station 20 located at 3505 Auburn Folsom Road approximately 3 miles east of the Project area, and Station 19 located at 7070 Auburn Folsom Road (over 3 miles southeast of the Project area). Station 20 operates a medic unit, one engine, and a grass unit, while Station 19 operates an engine, brush unit, and battalion vehicle (southplacerfire.org, 3/3/15). The Rocklin Fire Department Station 23 is located at 4060 Rocklin Road, roughly 2 miles southwest of the Project area. There are 38 full-time personnel serving the Rocklin Fire Department, including administration, prevention, and suppression staff (<http://www.rocklin.ca.us/depts/publicsafety/fire/about/default.asp>, March 4, 2015).

The Town operates one park site in Loomis, Sunrise-Loomis Park, and Placer County operates the Loomis Basin Regional Park on the northeast border of the Town. Recreational facilities are also provided by area schools (Del Oro High School, Franklin Elementary School, H. Clarke Powers School, Loomis Elementary School and Placer Elementary School) and Sierra Community College. Parks in Rocklin include five community parks and 25 neighborhood parks. There are no existing parks within the footprint of the Project.

Placer Union High School District and Loomis Union School District provide a variety of learning opportunities for children in kindergarten through 12<sup>th</sup> grade. Although preschools are located within and near the alignment, the nearest district school is Loomis Elementary School located at Taylor and King Road north of the Project. The Rocklin Unified School District includes 11 elementary schools, two middle schools, two comprehensive high schools, one continuation high school, and one independent charter school. None of the schools are located within the vicinity of the Project. The nearest school in Rocklin is Sierra Community College located southwest of the Project.

#### **XIV.a Substantial Adverse Physical Impacts Due to Maintaining Acceptable Service Levels**

A significant impact would occur if the proposed Project requires construction of new public service facilities or expansion of such service facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection, police protection, schools, parks, and other public services. The Project will not rely on the addition or alteration of any public services.

The subject site is within the central portion of the Town of Loomis and within the easternmost portion of the City of Rocklin. The Project proposes to increase the existing capacity to address current capacity issues as well as provide capacity for planned developed as addressed in the General Plans. The capacity would not be of a volume to serve additional growth beyond that which is addressed in the General Plans. The Project does not propose new housing units or employment opportunities that would increase the area population and result in increased demand for services.

**Fire Protection.** The Loomis Fire Protection District, South Placer Fire District, and Rocklin Fire Department provide fire protection services to the Project area. The Project does not propose new above-ground structures as the pipeline will be located entirely below ground. Operation of the pipeline will not result in activities that may cause a fire. As discussed in the Project Description, construction equipment would include spark arrestors, vehicle-mounted fire extinguishers, and a water truck would be onsite. Impacts on fire protection services would not be significant and demand for services would not increase as a result of sewer pipeline operation.

Environmental Analysis: *Less than Significant.*

**Law Enforcement.** The Placer County Sheriff's Department and Rocklin Police Department will continue to provide police protection services to the Project area. The Project proposes the construction and operation of an underground sanitary sewer pipeline. Pipeline operations would not create situations in which demand for law enforcement protection would increase as no above-ground structures or public gathering areas are proposed. Construction will include security fencing to prevent trespass, theft, vandalism, or other unlawful activity.

Environmental Analysis: *Less than Significant.*

**Schools.** The Project area includes the Little Orchard Preschool, but the preschool is not within the project footprint or disturbance area. Construction may affect access to the school due to partial lane closures along Brace Road and Dias Lane; however, full road closure would not occur and preschool operations may continue to occur during construction. The closest public school, Loomis Elementary is located approximately 0.25 mile north of the Project at Taylor and King Roads. As discussed in Impact XIII-a, the Project will not include construction of residential structures, nor change the existing land use to increase demand for school services. The Project will not require use of school facilities.

Environmental Analysis: *Less than Significant Impact.*

**Parks.** No parks or recreation facilities exist within the Project disturbance area, and therefore, no parks would be affected by project construction. The Project will not include construction of residential structures, nor change the existing land use to increase demand for additional park or recreational services.

Environmental Analysis: *Less than Significant Impact.*

**Other public facilities.** There are no library or other public facilities in the Project area that would be affected by construction or operation of the Project. The project area does not include other public facilities other than utility lines. Utility poles are located on the east side of Dias Lane, the south side of Brace Road, and the west side of Betty Lane. Some temporary utility line relocation may be necessary during construction; however, service would not be affected.

Environmental Analysis: *Less than Significant Impact.*

## XV. Recreation

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			√	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?			√	

## Environmental Setting

The Town operates one park site in Loomis, Sunrise-Loomis Park, and Placer County operates the Loomis Basin Regional Park on the northeast border of the Town, near the I-80 crossing. Recreational facilities are also provided by area schools (Del Oro High School, Franklin Elementary School, H. Clarke Powers School, Loomis Elementary School and Placer Elementary School) and Sierra Community College. There is one bikeway in Loomis located along King Road and is not within the Project area. The General Plan indicates Secret Ravine provides opportunities for hiking and equestrian trails and that a bike trail is planned along Secret Ravine from Loomis Basin Regional Park to the City of Roseville. Parks in Rocklin include five community parks and 25 neighborhood parks. There are no existing parks within the footprint of the Project. The Rocklin General Plan Conservation Element indicates there are no plans for parks or recreational facilities within the Project footprint.

### XV.a Increase Use of Existing Recreational Facilities

A significant impact would occur if the proposed Project substantially increases the use of existing recreational facilities such that substantial physical deterioration would occur or be accelerated.

The Project includes construction and operation of an underground sanitary sewer pipeline to address an existing conveyance capacity issue. Operation of the proposed sanitary sewer line would not require use recreational facilities. Planned residential development in the area that would utilize the proposed pipeline would be required to include recreational facilities to address demand generated by those developments; however operation of this project does not require or create use of existing recreational facilities.

Environmental Analysis: *Less than Significant Impact.*

## **XV.b Include or Require Construction or Expansion of Recreational Facilities**

A significant impact would occur if the proposed Project includes recreational facilities or requires construction of such facilities that might have an adverse physical effect on the environment.

The Project includes construction and operation of an underground sanitary sewer pipeline to address an existing conveyance capacity issue. The Project does not propose new or expanded recreational facilities, nor does it provide housing or populations that would demand recreational facilities. Planned residential development in the area that would utilize the proposed pipeline would be required to include recreational facilities to address demand generated by those developments; however operation of this project does not require or create demand for new or expanded recreational facilities.

Environmental Analysis: *Less than Significant Impact.*

## **XVI. Transportation and Traffic**

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			√	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			√	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				√
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			√	

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
e) Result in inadequate emergency access?			√	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				√

## Environmental Setting

Roadways within the Town of Loomis include I-80, Horseshoe Bar Road, Betty Lane, and Brace Road. Construction would not occur within Betty Lane, but near to and parallel with this roadway. The Project would tunnel beneath I-80 and Horseshoe Bar Road. Brace Road is collector street while Horseshoe Bar Road is an arterial. There is no current level of service (LOS) data regarding Brace Road, Dias Lane, or Horseshoe Bar Road. Intersection level of service is defined in Table 10. I-80 is a six-lane highway, and operates at LOS D between Sierra College Blvd. and Highway 49 (Caltrans I-80 Transportation Corridor Concept Report, 2010). According to the 2001 Loomis General Plan, I-80 operated at PM Peak Hour LOS of C (westbound) and B (eastbound) at the Horseshoe Bar Road interchange. Horseshoe Bar Road is a two lane arterial roadway. The 2001 General Plan indicates that Horseshoe Bar Road within the project area had an average daily traffic (ADT) level of 5,300 and was anticipated to have a future ADT of 17,100. There are no signalized intersections within the Project area.

Dias Lane is the only affected roadway within the City of Rocklin. Dias Lane is a local privately-owned street, measuring 12 feet in width. The roadway currently in poor condition. Since Dias Lane is a small, local roadway serving residences, there is no level of service (LOS) data available.

<b>Table 10</b>		
<b>Intersection Level of Service Definitions</b>		
<b>Level of Service</b>	<b>Description</b>	<b>Unsignalized Intersections (Average Control Delay)<sup>1</sup></b>
A	Represents free flow. Individual users are virtually unaffected by others in the traffic stream.	<10
B	Stable flow, but the presence of other users in the traffic stream begins to be noticeable.	>10 to 15
C	Stable flow, but the operation of individual users becomes significantly affected by interactions with others in the traffic stream.	>15 to 25
D	Represents high-density, but stable flow.	>25 to 35
E	Represents operating conditions at or near the capacity level.	>35 to 50
F	Represents forced or breakdown flow.	>50

Sources: <sup>1</sup> HCM 2000, Chapter 17, Unsignalized Intersections. Values shown are in seconds/vehicle.

**XVI.a Conflict with an Applicable Plan, Ordinance or Policy Establishing Measures of Effectiveness for the Performance of the Circulation System**

A significant impact would occur if the proposed Project conflicts with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.

Project operations would not result in additional trip generation. Construction would result in a temporary increase in trips as a result of construction contractors accessing the pipeline route, equipment and materials delivery, and construction activity along Dias Lane and Brace Road. Construction in these areas is anticipated over a four month period. Since construction traffic would be temporary, it would not significantly affect the performance or effectiveness of the circulation system. In summary, the Project would have a less than significant impact on traffic and would not conflict with plans, ordinances, or policies regarding the performance of the circulation system.

Environmental Analysis: *Less than Significant Impact.*

**XVI.b Conflict with an Existing Congestion Management Plan**

A significant impact would occur if the proposed Project conflicts with an applicable congestion management program.

There are no applicable congestion management plans for the roadways near the Project site. Operation of the pipeline would not result in congestion or LOS changes.

Environmental Analysis: *Less than Significant Impact.*

**XVI.c Result in Change in Air Traffic Patterns**

A significant impact would occur if the proposed Project results in a change in air traffic patterns.

The nearest airport, Auburn Municipal Airport, is over 12 miles northeast of the Project site. McClellan Airfield in Sacramento is located over 13 miles southwest of the Project site. The Project will not cause an increase in air traffic levels or cause a change in air traffic location.

Environmental Analysis: *No Impact.*

**XVI.d Increase Hazards due to Design Feature**

A significant impact would occur if the proposed Project substantially increases hazards due to a design feature or incompatible uses.

New roadways are not proposed for this Project. The Project includes placement of a portion of the pipeline within roadway ROW, but does not propose changes to the roadway design or alignment. Utility placement within the roadway ROW is a compatible use and the addition of manholes within the ROW would not present a hazard.

Environmental Analysis: *Less than Significant Impact.*

## XVI.e Result in Inadequate Emergency Access

A significant impact would occur if the proposed Project results in inadequate emergency access.

The Project will affect circulation along Dias Lane and Brace Road during construction as a result of lane closures, detours, and traffic control. Emergency vehicle routes will remain open during Project construction. Affected roadways would be repaired following construction and operation of the pipeline would not affect emergency access as the Project would be located below-ground and would not generate additional traffic.

Environmental Analysis: *Less than Significant Impact.*

## XVI.f Conflict with Adopted Policies, Plans, or Programs Regarding Public Transit

A significant impact would occur if the proposed Project conflicts with adopted policies, plans, or programs regarding public transit.

The Project would not affect public transit. The pipeline alignment is within a rural area where public transit is currently not operating. The Project does not interfere with future plans or programs regarding public transit.

Environmental Analysis: *No Impact.*

## XVII. Utilities and Service Systems

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			√	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			√	
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			√	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			√	



<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less than Significant Impact</b>	<b>No Impact</b>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			√	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				√
g) Comply with federal, state, and local statutes and regulations related to solid waste?				√

## Environmental Setting

Water service in the Project area is provided by the Placer County Water Agency (PCWA), while wastewater service is provided by the SPMUD. The Project is located within PCWA's Lower Zone 1. Lower Zone 1 water is delivered through PG&E's Drum-Spaulling hydroelectric system and PCWA's Middle-Fork American River project. Per the 2010 Urban Water Management Plan, there are four water treatment plants in Zone 1, 16 storage tanks with approximately 49 million gallons of storage capacity and 496 miles of pipeline. Of these facilities, the Foothill (58 MGD capacity) and Sunset (8 MGD) water treatment plants are located in Lower Zone 1 (PCWA 2010 Urban Water Management Plan, 2011). The Urban Water Management Plan concludes that its water entitlements are sufficient to meet the project demands based on current and proposed General Plans in western Placer County. Existing water lines are located within Dias Lane and Brace Road (20 and 30-inch water lines), and PCWA operates an irrigation line within Alignment 2A. Utility line separation distances for water lines and irrigation lines are 10 and five feet, respectively.

SPMUD provides wastewater service within the Town of Loomis and City of Rocklin, as well as other areas of Placer County. Currently, SPMUD maintains over 21,000 sewer service connections. ([www.spmud.ca.gov/about-us/](http://www.spmud.ca.gov/about-us/), site accessed March 9, 2015). In 2013, a Long Term Capacity Assurance Study was prepared to evaluate exiting capacity along with planned capacity needs. This Study found current capacity issues as well as near-term and long-term development capacity issues. The 2014 Loomis Diversion Route Study modeled capacity for the pipeline considering existing and planned flows. The existing Lower Loomis Trunk sewerline operates at capacity during the Peak Wet Weather Flow as confirmed in the District's Capacity Assurance Study (2013). The Capacity Assurance Study relied on hydraulic modeling under existing, potential near term (10-20 planning horizon), and long-term (50-75 year planning horizon) or future flow conditions to identify capacity deficiencies and mitigate for them. The Study also found that a diversion pipeline would mitigate the capacity issue more effectively than upsizing the existing Lower Loomis Trunk Sewer. Based on these findings, the Project is proposed, located, and sized to address growth identified in the General Plans. The new wastewater treatment facility also has the capacity to serve the planned growth.

Solid waste service is provided in Loomis by the Auburn Placer Disposal Service for those households that choose to subscribe to the service. The Western Placer Waste Management Authority (WPWMA) provides the Western Regional Sanitary Landfill disposal site (Loomis General Plan, 2001). Within

Rocklin, the WPWMA provides recycling and waste disposal services. Solid waste materials are transported to WPWMA's Materials Recovery Facility for processing. The Western Regional Sanitary Landfill is located west of SR 65 between Roseville and Lincoln. Landfill capacity is approximately 38 million cubic yards and has a remaining capacity of approximately 27 million cubic yards. The landfill is expected to provide waste service until 2042 (City of Rocklin General Plan, 2012).

### **XVII.a Exceed Wastewater Treatment Requirements**

A significant impact would occur if the proposed Project caused water treatment requirements to be exceeded.

The Project would not generate wastewater, but its purpose is to convey wastewater and address an existing wastewater conveyance capacity issue within the existing Lower Loomis Trunk Sewer line. The Project is meant to collect and convey wastewater to the wastewater treatment facilities in Roseville (Pleasant Grove Wastewater Treatment Plant constructed in 2005). The pipeline would not result in wastewater treatment requirements being exceeded as SPMUD partnered with the City of Roseville and Placer County to construct and operate the Pleasant Grove Wastewater Treatment Plant to accommodate planned growth in the area. While the Project would convey wastewater from existing uses and planned growth, the Project itself would not generate wastewater, rather it would only provide the conveyance system

Environmental Analysis: *Less than Significant Impact.*

### **XVII.b Require the Construction of New Water or Wastewater Treatment Facilities or Expansion of Existing Facilities**

A significant impact would occur if the proposed Project caused the construction of water or wastewater systems that could cause a significant effect on the environment.

The purpose of the Project is to address an existing wastewater conveyance capacity issue by expanding existing sanitary sewer facilities. The Project itself would not utilize additional water or generate additional wastewater. The Project does not require the construction of new water facilities or the expansion of water facilities. The Project is sized to accommodate long-term (2060) projected growth in the area to ensure adequate wastewater treatment capacity, up to 5.71 mgd peak wet weather flows.

Environmental Analysis: *Less than Significant Impact.*

### **XVII.c Construction or Expansion of Stormwater Drainage Facilities**

A significant impact would occur if the proposed Project requires the construction or expansion of stormwater drainage systems that could cause a significant effect on the environment.

The Project does not propose the construction or expansion of stormwater drainage facilities, as the construction and operation of an underground sanitary sewer pipeline would not result in a need for new or expanded stormwater systems. The Project would result in 300 square feet of new impervious coverage as a result of new manholes located outside existing impervious coverage areas on the Turtle Island property. The proposed 300 square feet of coverage would not overwhelm or significantly impact existing stormwater drainage facilities. To prevent water and wind erosion during the construction-related activities period, a SWPPP will be developed for the Project as required for all projects that disturb more than one (1) acre in size. As part of the SWPPP, the Applicant will be required to provide BMPs. Any

stockpiled soils will be watered and/or covered to prevent loss due to wind erosion as part of the SWPPP during construction. As a result of these efforts, loss of topsoil and substantial soil erosion during the construction period are not anticipated.

Environmental Analysis: *Less than Significant Impact.*

#### **XVII.d Sufficient Water Supplies Available**

A significant impact would occur if the proposed Project impacts the water supply entitlements serving the project.

Project operations would not require potable water or irrigation water as the Project is the construction and operation of an underground sanitary sewer pipeline. Water used during construction would be trucked onsite and would not affect water supply entitlements.

Environmental Analysis: *Less than Significant Impact.*

#### **XVII.e Adequate Wastewater Treatment Capacity**

A significant impact would occur if the proposed Project results in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

The purpose of the Project is to address an existing wastewater conveyance capacity issue. The Project itself would not generate additional wastewater and the Project is sized to accommodate projected growth in the area to ensure adequate wastewater treatment capacity, up to 5.71 mgd peak wet weather flows.

Environmental Analysis: *Less than Significant Impact.*

#### **XVII.f Sufficient Landfill Capacity and Regulatory Compliance**

A significant impact would occur if the proposed Project affects the ability of a landfill to accommodate project needs.

Construction and operation of the proposed sanitary sewer diversion pipeline would not generate solid waste materials. Excess spoil would be reused within the Project area. No solid waste service is required.

Environmental Analysis: *No Impact.*

#### **XVII.g Federal, State, and Local Statutes and Regulations Related to Solid Waste**

A significant impact would occur if the proposed Project does not comply with federal, state, and local statutes and regulations relating to solid waste.

The Project will comply with federal, state, and local regulations and unused materials would be recycled and would not be discarded onsite.

Environmental Analysis: *No Impact.*

## XVIII. Mandatory Findings of Significance

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		√		
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		√		
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?		√		

### XVIII.a Potential to Degrade the Quality of the Environment

The proposed Project includes developing a sanitary sewer pipeline to address current capacity deficiencies in the existing pipeline and to address planned growth in the area that would further exacerbate the existing capacity deficiency. The environmental analysis for the Project does not identify any significant and unavoidable impacts. Due to potential to affect biological resources including state and federal listed plant and animal species, waters of the U.S., raptors and migratory birds, and protected trees, mitigation measures are proposed that require surveys and additional mitigating actions should biological resources be found during pre-construction surveys. As discussed in the preceding sections, potentially significant impacts can be mitigated to less than significant. The mitigation measures proposed by the Project both as part of the project and as mitigation will be implemented to ensure impacts are reduced to a less than significant level. As discussed in the analysis above, there is potential for cultural resources to occur within the Project site. Mitigation measures proposed for the Project are as follows and will reduce this impact to less than significant with implementation.

#### Required Mitigation:

**BIO-1. Active Raptor and Migratory Bird Nest Site and Wildlife Nursery Site Protection Program**  
(See IV.a for the complete text of the mitigation measure)

**BIO-2. Western Burrowing Owl**

(See IV.a for the complete text of the mitigation measure)

**BIO-3. Valley Elderberry Longhorn Beetle**

(See IV.a for the complete text of the mitigation measure)

**BIO-4. Special-Status Plant Species**

(See IV.a for the complete text of the mitigation measure)

**BIO-5. Section 404/401 Wetlands and Waters**

(See IV.c for the complete text of the mitigation measure)

**BIO-6. Wildlife Hibernacula/Roosting/Nursery Site Protection Program**

(See IV.d for the complete text of the mitigation measure)

**BIO-7. Preservation and Mitigation of Protected Trees**

(See IV.e for the complete text of the mitigation measure)

**CR-1. Pre-construction Native American Consultation**

(See V.b for the complete text of the mitigation measure)

**CR-2. Staging Area, Storage, and Spoil Disposal Site Review**

(See V.b for the complete text of the mitigation measure)

**CR-3. Trench Monitoring**

(See V.b for the complete text of the mitigation measure)

Environmental Analysis: *Less than Significant Impact with Mitigation Incorporated.*

**XVIII.b Cumulative Impacts**

As shown in the impact analysis, the Project will primarily result in no impact or less than significant impacts. The Project will result in some impacts that will be mitigated to less than significant; however these impacts are primarily site-related and would not contribute to a cumulative impact. By mitigating the impacts, the potential for a cumulative impact is also reduced. As discussed in the air quality and noise analyses, cumulative impacts would not occur as disturbance to existing air and noise levels would be limited to the construction period and/or would not exceed limits. Impact III.c states, “The diversion pipeline would not have operational emissions, and therefore the Project would not cause a cumulatively significant impact.” Impact XII.a states operational noise levels are not expected to occur. The Project would not require water services or connections. Population growth and new housing would occur following Project development; however, the new units have already been planned and approved, and are under the General Plan planned development. Improvements to the sanitary sewer line would not extend service to areas not already planned for development within the General Plans. The Project design and compliance with applicable codes, ordinances, laws and other required regulations will reduce the magnitude of any impacts associated with construction activities and operations to a less than significant level.

Environmental Analysis: *Less than Significant Impact with Mitigation Incorporated.*

**XVIII.c      Adverse Effects on Human Beings**

The Project will not result in substantial adverse effects on human beings, either directly or indirectly as impacts affecting people, such as air quality, public services, utilities, traffic, and others will be less than significant. Mitigation Measure NOISE-1 is included to address a slight potential for vibration impacts on dwellings within 25 feet of the construction corridor. Indirect impacts will not occur; however the Project will directly benefit the community by addressing an existing sewer line capacity issue and providing adequate capacity to serve the planned and approved development in the area.

**Required Mitigation:****NOISE-1. Pre-construction Structural Documentation and Post-construction inspection**

(See XII.b for the complete text of the mitigation measure)

Environmental Analysis: *Less than Significant Impact with Mitigation Incorporated.*

## **4.0 List of Preparers**

### **4.1 Lead Agency:**

Town of Loomis  
Rick Angelocci, Town Manager

### **4.2 Environmental Consultants:**

#### **Hauge Brueck Associates**

Anders Hauge – Project Manager  
Garth Alling  
Amy Parravano  
Christy Consolini  
Jen DeMartino

#### **Sierra Research**

Eric Walther

#### **Peak Associates**

Melinda Peak  
Robert Gerry

## 5.0 References

### 5.1 References

- Bala, G. et al., 2013. *Nitrogen Deposition: how important is it for global terrestrial carbon uptake*, Biogeosciences, Volume 10, pp. 11077-11109, 2013, <http://www.biogeosciences-discuss.net/10/11077/2013/bgd-10-11077-2013.pdf>.
- Beardsley, Richard K. 1954. Temporal and Areal Relationships in Central California Archeology (parts 1 and 11). *University of California Archaeological Survey Reports* 24, 25. Berkeley.
- California Air Resources Board. 2014. *First Update to the Climate Change Scoping Plan*, May 15, 2014, [http://www.arb.ca.gov/cc/scopingplan/2013\\_update/first\\_update\\_climate\\_change\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf).
- California Air Resources Board. 2014. *Final Regulation Order, Area Designations for State Ambient Air Quality Standards*, July 1, 2014, <http://www.arb.ca.gov/regact/2013/area13/area13fro.pdf>.
- California Air Resources Board. 2014. *Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values*, July 3, 2014, <http://www.arb.ca.gov/toxics/healthval/contable.pdf>.
- California Department of Conservation. 2012. Farmland Mapping and Monitoring Program, Lassen County 2010. <http://www.conservation.ca.gov/dlrp/fmmp>. Site accessed: February 18, 2015.
- California Department of Conservation. 2012. Probabilistic Seismic Hazards Mapping Ground Motion Page. <http://redirect.conservation.ca.gov/cgs/rghm/pshamap/pshamap.asp?Longitude=-120.58&Latitude=40.412>. Site accessed: February 18, 2015.
- California Department of Conservation, Division of Mines and Geology. 1995. Open File Report 95-10 Mineral Land Classification of Placer County, CA (Lloyd, R., 1995).
- California Department of Toxic Substances Control. 2015. Envirostor Database. Site accessed: February 25, 2015.
- California Department of Transportation. 1976. Survey of Earth-borne Vibrations due to Highway Construction and Highway Traffic.
- California Department of Transportation. 2010. Caltrans I-80 Transportation Corridor Concept Report.
- California Natural Diversity Database (CNDDDB). 2015. Query of the California Natural Diversity Database for special-status species occurrences within 10 miles of the project site. Biogeographic Data Branch, California Department of Fish and Wildlife, Sacramento. June 2, 2010.
- California Office of Historic Preservation (CAL/OHP). 1990. California Historical Landmarks. California State Department of Parks and Recreation, Sacramento.
- CGI Technical Services, Inc. 2014. Preliminary Geotechnical Study: Loomis Diversion Pipeline Alternatives. August 20, 2014.
- Chavez, David. 1983. Archaeological Resource Investigations for the Southeast Placer County Wastewater Project, Placer County, California. Report on file: State Water Resources Control Board (Project # C-06-1271-010), Sacramento.
- City of Rocklin. 2012. City of Rocklin General Plan.
- City of Rocklin Police. 2015. <http://www.rocklin.ca.us/civica/filebank/blobdload.asp?BlobID=2863>. Site accessed March 4, 2015.



- Clark, William B. 1970. *Gold Districts in California*. California Division of Mines and Geology, Sacramento.
- Federal Emergency Management Agency (FEMA). 2013. National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) for Community Number 06061C0418F.
- Federal Transit Administration. 2006. Transit Noise and Vibration Impact Assessment Guidelines. May 2006.
- Foothill Associates. 2014. Arborist Report 6201 Horseshoe Bar Road, Placer County, CA. January 21, 2014.
- Foothill Associates. 2014. Biological Resources Assessment 6201 Horseshoe Bar Road, Placer County, CA. January 21, 2014.
- Foothill Associates. 2014. Delineation of Waters of the United States 6201 Horseshoe Bar Road, Placer County, CA. March 27, 2014.
- Frickstad, Walter N. (compiler). 1955. A Century of California Post Offices. Walter N. Frickstad, Oakland.
- Gudde, Edwin G. 1969. California Place Names. University of California Press, Berkeley.
- Gudde, Edwin G. 1975. *California Gold Camps*. University of California Press, Berkeley.
- Institute of Transportation Engineers' (ITE). 2012. Trip Generation Manual, 9<sup>th</sup> Edition.
- Kroeber, Alfred L. 1925. Handbook of the Indians of California. Bureau of American Ethnology Bulletin 78. Washington.
- Lillard, Jeremiah B., Robert F. Heizer and Franklyn Fenenga. 1939. An Introduction to the Archaeology of Central California. *Sacramento Junior College, Department of Anthropology Bulletin 2*. Sacramento.
- Lillard, Jeremiah B. and William K. Purves. 1936. The Archeology of the Deer Creek-Cosumnes Area, Sacramento County, California. *Sacramento Junior College, Department of Anthropology Bulletin 1*. Sacramento.
- Moratto, Michael J. 1984. *California Archaeology*. Academic Press, New York.
- National Oceanic and Atmospheric Administration (NOAA), Earth System Research Laboratory, Global Monitoring Division, *A Global Network for Measurements of Greenhouse Gases in the Atmosphere*, <http://www.esrl.noaa.gov/gmd/ccgg/>, accessed March 3, 2014.
- North State Resources. 2014. Technical Memorandum: Constraints Analysis for the Loomis Diversion Pipeline, Placer County, SPMUD. August 8, 2014.
- Placer County Air Pollution Control District. *CEQA Air Quality Handbook*, page 1-12, October 2012.
- Placer County Sheriff's Office. <http://www.placer.ca.gov/departments/sheriff/unitsanddivisions>. Site accessed March 4, 2015.
- Placer County Water Agency. 2011. PCWA 2010 Urban Water Management Plan.
- Ragir, Sonia. 1972. The Early Horizon in Central California Prehistory. *University of California Research Contributions 15*. Berkeley.
- Riddell, Francis A. 1978. Maidu and Konkow. In California, edited by Robert F. Heizer, pp. 370-387. Handbook of North American Indians, vol. 8, William G. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

- Rocklin Fire Department. 2015. <http://www.rocklin.ca.us/depts/publicsafety/fire/about/default.asp>. Site accessed March 4, 2015.
- Sacramento Metropolitan Air Quality Management District. *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2013 SIP Revisions)*, September 26, 2013.
- Schenck, W. Egbert and Elmer Dawson. 1929. Archaeology of the Northern San Joaquin Valley. *University of California Publications in American Archaeology and Ethnology* 25(4):289-413. Berkeley.
- South Placer Fire District. 2015. southplacerfire.org. Site Accessed 3/3/15.
- South Placer Municipal Utility District. 2015. [www.spmud.ca.gov/about-us/](http://www.spmud.ca.gov/about-us/), Site accessed March 9, 2015.
- Town of Loomis. 2001. Town of Loomis General Plan.
- Transportation Research Board. 2000. Chapter 17. Highway Capacity Manual.
- Transportation Research Board. 1997. Dynamic effects of pile installations on adjacent structures. A synthesis of highway practice. Washington, D.C.
- U.S. Census Bureau. 2010. American Factfinder. <http://factfinder2.census.gov>. Site accessed: February 25, 2015.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2013. Web Soil Survey. <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Site accessed: February 24, 2015.
- U.S. Fish and Wildlife Service. 2015. Species list by Quad. Queried May 28, 2015.
- Waterworks Engineers. 2014. South Placer Municipal Utility District Loomis Diversion Route Study. November 14, 2014.
- Waterworks Engineers. 2013. SPMUD Wastewater Collection System Long Term Capacity Assurance Study. December 2013.
- Wilson, Norman L., and Arlean Towne. 1978. Nisenan. In *Handbook of North American Indians* (vol. 8), edited by Robert F. Heizer. Smithsonian Institution, Washington, D.C.
- Zeiner, D. C., W. F. Laudenslayer Jr., and K. E. Mayer (editors). 1990. California's Wildlife. Resources Agency, Dept. Fish and Game, Sacramento, California.

## 5.2 Correspondence and Personal Communications

- Native American Heritage Commission. 2014. Katy Sanchez. Letter dated December 19, 2014.
- T'si Akim Maidu. 2015. Personal Communication with Grayson Coney. January 5, 2015
- Shingle Springs Rancheria. 2015. Daniel Fonseca. Letter dated January 14, 2015.
- United Auburn Indian Community of the Auburn Rancheria. 2015. Gene Whitehouse. Letter dated January 27, 2015.

## **Appendix A**

### **Air Emissions Calculations**

## **Appendix B**

### **Biological Features and Preferred Alignment Map and Biological Resources Reports**

Biological Features and Preferred Alignment Map

2014 Biological Resources Assessment

2014 Delineation of Waters of the United States

2014 Arborist Report

Portions of the Biological Resources Assessment (January 21, 2014), Arborist Report (January 21, 2014), and Delineation of Waters of the United States (March 27, 2014) are included in this appendix. The complete reports are available for review on the website ([http://www.loomis.ca.gov/loomis\\_projects.html](http://www.loomis.ca.gov/loomis_projects.html)) and at the Town office: 3665 Taylor Road, Loomis, CA 95650.

## **Appendix C**

### **Cultural Resources Report**

Resource maps have been excluded to protect the listed resources; however, the complete report Cultural Resources Report is available for review on the website ([http://www.loomis.ca.gov/loomis\\_projects.html](http://www.loomis.ca.gov/loomis_projects.html)) and at the Town office: 3665 Taylor Road, Loomis, CA 95650.

## **Appendix D**

### **General Plan Consistency Table**